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## CHEAPER RUBBER FROM THE AMAZON.

AN unnamed writer in a London newspaper, quoted on another page of this issue, asserts that in the Brazilian territory of the Acre—possibly the richest forest rubber district in the world—all that the actual gatherer of the rubber gets for his labor is food and clothes. The standard of living in those wilds is not understood to be very high (except in the matter of prices), and this anonymous authority is of the opinion that, under better management than now prevails, it would be possible to feed and clothe the *seringueiros* and lay down good rubber at the river steamer landings at 11 cents a pound or less.

Now the best work at rubber gathering which he has seen done was not above 1,500 pounds in a year of nine months, which, at 11 cents a pound, would work out at \$165, gold, per man. We have seen nothing yet to convince us that rubber can be produced so cheaply anywhere in the Amazon region, though in time without doubt we shall see rubber produced in Brazil much more cheaply than at present, just as the production of steel in the United States has declined so enormously within a recent period. The decline in rubber costs, however, is not likely to occur so speedily as to cause alarm to the managers of well conducted plantations, such, for instance, as are being worked in Ceylon.

One other point in the London newspaper article is of even more interest—the assertion that natives of Barbados are succeeding as rubber workers in the upper Amazon district. It has become customary to assert that no foreigners could work rubber in the climate of northern Brazil, but it is not rational to assume that this condition will always obtain. With rubber from the Acre selling at about \$2,700 a metric ton—this has been the New York price of late—it will not be difficult for intelligent management to bring about gradually a considerable alien force of rubber gatherers.

The fact that the small individual proprietor of *estradas* has not been able in the past to secure foreign workers has nothing to do with the case. The small Brazilian proprietor never had much to do with the extension of the rubber trade any way. The demand for rubber existed abroad, and capital was supplied from abroad—directly or indirectly—to produce the rubber and get it to market.

To-day the spirit of the Amazonian people is antagonistic to foreigners, and they study how the latter, as far as possible, can be prevented from sharing in rubber profits. If the low cost of rubber production figured out in our London contemporary ever comes about, it will be through foreign management and the use of foreign capital. If foreign coöperation is not welcomed, the Amazon states will have only themselves to blame for the encouragement which this spirit will give to the competition of plantation with forest rubber.

## EVADING BRITISH PATENT LAW.

ONE provision of the new British Patents act is that a patent granted to a foreigner may become invalid within a certain limit of time in case the invention covered by it is not manufactured within Great Britain "to an adequate extent." An American consul, it seems, has reported to Washington that "it would appear to be perfectly in order to manufacture the parts of a machine in the United States and have them assembled in the United Kingdom. The ground on which this view is taken is that each part of the machine, taken separately, is not a patented article, the patent merely applying to the machine as a whole. No test case has yet been taken in the British courts, and I am informed that the above is the generally accepted reading of the law until such a test case is brought."

The American consular report is not before us at this writing, its substance having come to notice through several British contemporaries, which express the opinion that in case the consul's suggestion is acted upon, "very little time will be lost [in Great Britain] in testing the legality of such method of evasion, and, if necessary, amending the Act."

It would appear to an outsider that certain British court decisions already on record may have a bearing upon the question in point. On March 2, 1904, in the

Court of Appeal, in an action by the Dunlop Pneumatic Tyre Co., Limited, et al. v. David Moseley & Sons, Limited, for alleged infringement of patents, judgment was rendered in behalf of the defendants.

Stating the case broadly, as we understand it, and without going through all the various stages of procedure, it appears that the Messrs. Moseleys' defence was that since they made only certain of the component parts covered by the Dunlop invention, and did not assemble the parts, they were not infringing the patent. Lord Justice Vaughan Williams, in giving judgment on appeal, said that there could be no doubt that the real question was whether the selling of an article—meaning a component article—adapted or intended for the purpose of infringing a patent was an infringement of that patent. In his judgment it was not.

The gist of the matter is this: If A manufactured tire covers, B retaining wires, C inner tubes, and D a certain type of rim, the combination of all these being essential to the construction and working of the Dunlop-Welch tire, no one of the four could be held to have infringed that patent. Nor, according to the court, should the burden be placed upon any particular manufacturer of ascertaining the ultimate purpose to which any individual purchaser might put any cover, tube, wire or what not. It was such legal decisions, by the way, that led the management of the Dunlop tire company, later in the same year, to express their satisfaction over the expiry of their basic patents.

Now, if British inventors, holding patent grants under their own laws, could not protect themselves from competitors at home, whose defense was that they manufactured only component parts and not a complete device or apparatus, what would be the assurance of an American or German inventor, for example, holding a British patent, that he would be protected under it, in the event of establishing a manufacturing plant in Britain, against the same sort of competition?

But to go back to the Dunlop decision, it would seem that only the assembling of the parts of an invention—not merely their manufacture—constitutes infringement of a patent in Great Britain. Then why should not the assembling of parts in that country, regardless of where manufactured, be accepted as "the working of a patent to an adequate extent" in England?

#### RUBBER AND THE TARIFF.

THE fact that the committee on ways and means of the United States congress for some time past has been giving "tariff hearings" is of no special significance, in spite of the fact that the "platform" on which Mr. Taft, last November, was elected president for the term beginning on March 4 next, commits him to call a special session of congress to deliberate upon the tariff. Not that any want of sincerity in any quarter is suggested, but

the American nation for most of the time since 1789 has been committed to the principle or theory of "protection," and we cannot see that anything has occurred in recent years to indicate a deviation therefrom. To be sure, criticisms of any existing tariff schedule are to be heard in any year, and sometimes from unexpected sources, but in the last analysis the law continues to impose duties on imports for the benefit of home industries. The schedules are changed from time to time, of course, but one particular schedule differs from another about as the New York City Directory differs this year from last—in detail but not in character. One firm drops out and is succeeded by another, but it is still the New York City Directory—published annually from a time antedating the American Constitution. So with the items on the protective tariff list.

The opposition to the government from time to time has exerted itself to gain votes by appealing to the people on the ground that by adopting "free trade" everything could be bought cheaper, but when the question of reforming the tariff was seriously taken up the campaign argument has been offset by the assertion that by the unrestricted admission of foreign manufactures the employment of American labor would be curtailed, and, coincidentally, the buying capacity of the average American citizen lessened. We do not mean to go upon record as to whether the prevailing sentiment is sound, but only to point to what has happened in the past, and to the fact that no recent revolution in the voice of the public has been evident.

The latest argument for a revision of the tariff has been based upon the idea that the "trusts" have put up the cost to the public of their products inordinately, to the distress of the masses. This involves the additional idea that the "trusts" are monopolies, and it remains for any "trust" of this character to be pointed out. It is doubtful whether there is in America any large combination in any industry whose managers are not continually on the alert lest the competition of outside concerns render them unable to pay dividends on their actual capital. And if any industrial combination should put up prices beyond reasonable limits, it would only be to invite competition from abroad to which no tariff schedule yet enacted would hardly impose any restriction.

The congressional committee lately busy with the study of the tariff has devoted much time to hearing statements as to the cost of labor in the United States and abroad in given industries. This, however, is far from being the whole question. Everybody in trade knows that, regardless of the cost of goods in any country, surplus products are liable to come upon the markets of another country at depressed prices, and a comparatively small volume of such goods may demoralize trade to a great degree. It really is on account of such possibilities that many items in every "protective" schedule find place there. We take it that the production of most important lines of goods in the United States is so large that no possible compe-

tition from abroad would be worth considering except on the basis of possible importations now and then of surpluses at a price such as to upset the market and temporarily threaten the profits of dealers without any real benefit to consumers as a class.

A few rubber manufacturers have been before the congressional committee, for one reason or another, but we cannot see that they have thrown much light upon the subject as a whole. No doubt every rubber man who has visited Washington has had some tangible reason, based upon his own individual business conditions or needs, but we do not hesitate to say that the relative consumption of rubber in America and abroad would not be greatly changed from the present figures were rubber goods to be placed absolutely upon the free list. But since there is not the slightest probability of the free list being augmented in the near future, the rubber trade seems to have little concern in the present proposals for tinkering with the tariff.

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In this connection it is of interest to note that in the *Bulletin* of the International Bureau of the American Republics (Washington, December, 1908) appears an interesting paper on "The Spanish Language in the Modern Curriculum," which relates mainly to the establishment of instruction in Spanish at the University of Washington, Seattle. It appears that the teaching of Spanish began here in 1897, since which time the new department has grown until now three instructors are employed, while the number of students in this language exceeds 200. It is stated that "Students graduating from the University of Washington have found that Spanish often becomes the chief factor in their success or ability to secure positions, and each year positions are being filled by those who know this language and are able to use it in business transactions, or to teach it in those schools where it is being inaugurated and where its growing importance is being recognized."

A pertinent fact revealed by the last annual report of the director of the International Bureau of American Republics is that, while the trade between the United States and South America increases year by year, the share of the United States still remains small as compared with that of Europe, and it is possible that this is due, in an important degree, to the disregard hitherto in North America to the languages of the southern half of the continent.

It has not been sufficiently appreciated in the United States that the solicitor for business south of the Isthmus of Panama must deal with an educated class, and that men of cultivation must be sent in quest of trade. The oldest seat of learning in the United States is inferior in the point of age to the University of Lima by nearly a century, and the university at Quito is nearly as old. It is to be noted that almost every South American governor or president or other important government official is termed "Dr.," the

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IN a recent special dispatch to the *St. Louis Globe-Democrat* from Colorado Springs, Colorado, is announced the discovery that in low grade, oxidized Cripple Creek gold ore has been discovered a content "more valuable than its treasure of gold—caoutchouc, or gum elastic." This can be extracted profitably from the ore by a secret process known only to its discoverer, Dr. J. C. Ross. The doctor, who seems to be a practicing physician, claims that after years of scientific investigation and experiment this ore can be transferred into a high grade of rubber, equal if not superior, to that obtained from the latex of rubber trees. He is confident of more than doubling the world's production soon. This news is most interesting and startling and opens up infinite possibilities. If from gold ore, why not silver ore, giving a product that could be compounded 16 to 1? If gold rubber is in sight, why not drop the idea of a gold or a silver basis in coinage, and adopt a rubber basis, thus settling the problem of elastic currency? By the way, was it a doctor or a minister who succeeded in extracting salt water from gold, or was it gold from salt water?

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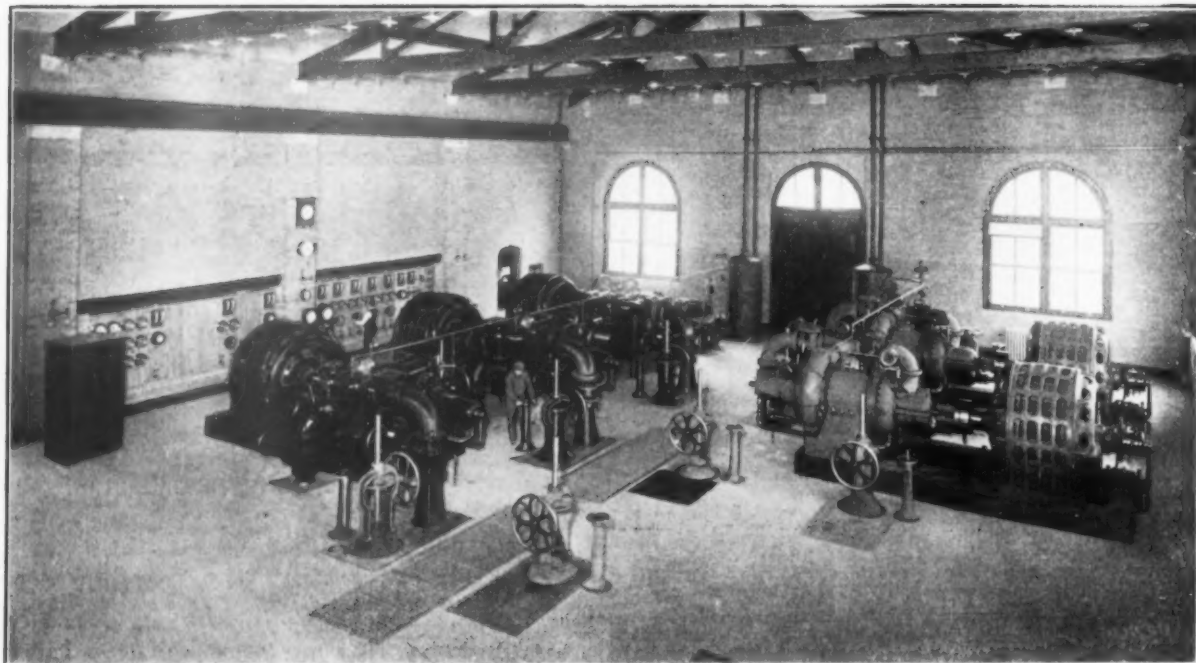
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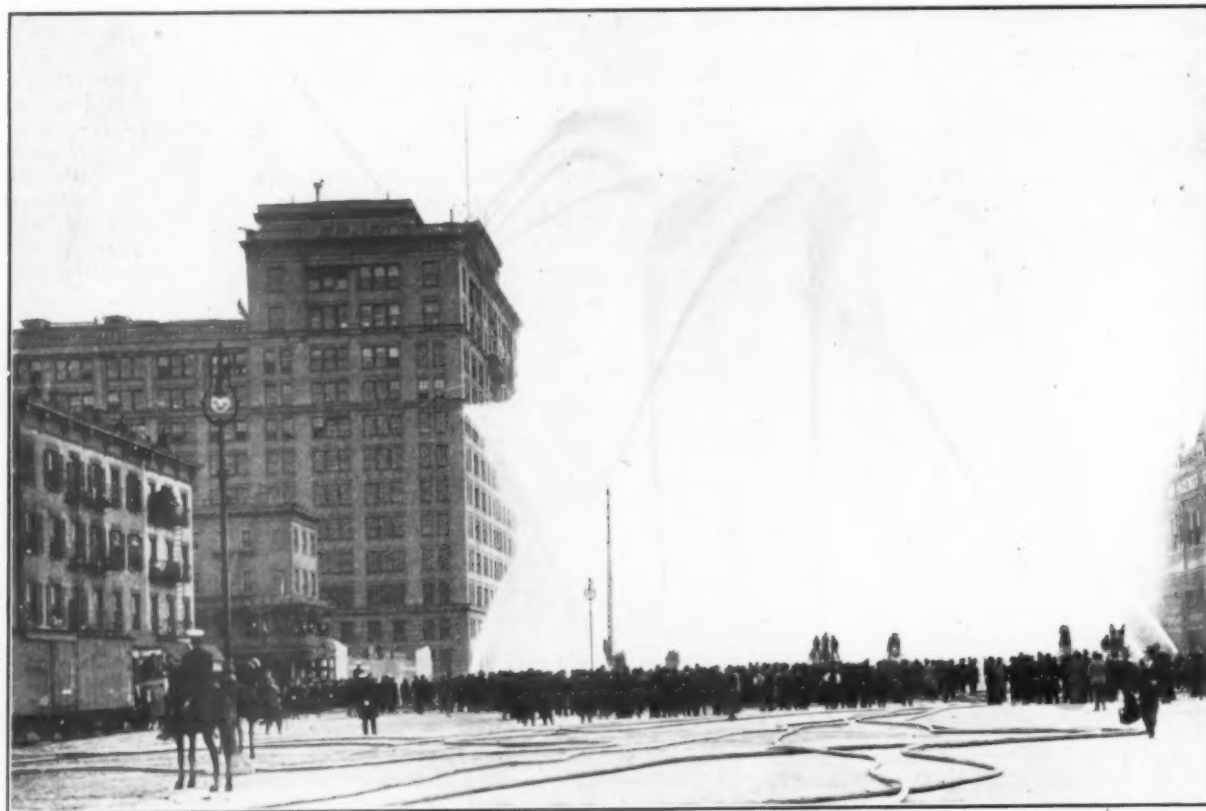
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INTERIOR OF ONE OF THE NEW HIGH PRESSURE STATIONS IN MANHATTAN BOROUGH.



STREET EXHIBITION OF NEW SYSTEM, SHOWING HEIGHT OF STREAMS.  
NEW YORK'S SUBSTITUTE FOR THE FIRE ENGINE SYSTEM.

## New York's New Fire Protection System.

THE great increase in the height of modern business buildings has made necessary a change in the methods of protection against fire. Hence the development of the new high pressure pumping stations being installed to protect the congested districts of great cities. The fire engine is inadequate in the days of the "skyscraper." The old hand pump was adequate in the era of the cottage and two story house; the steam fire engine answered for the day of the four and five story buildings, but the twenty story structure needs something more powerful. To reach a fire high up in the air there must be an abundant supply of water, there must be sufficient power to force it up, and there must be strong extra heavy rubber hose or iron pipes to carry it.

Several years ago, through the suggestions of Mayor George B. McClellan, of New York, backed up by the Merchants' Association and the Fire Underwriters, appropriations were made to establish in the city high pressure pumping stations designed to protect the great business centers south of Twenty-third street, and the congested tenement districts of the east side. These stations have been completed within the past year, and were put into service during the past summer. They are said by expert engineers to be models, and of being capable under ordinary conditions of putting water to the top of the highest buildings yet constructed. Additional interest in the establishment of these high pressure stations was created in the minds of city officials, business men, and fire underwriters by the destructive fire in the Parker building, a ten story structure of "fireproof" construction which was completely gutted on January 10, 1908. Although there were twenty-five engines, three water towers, and eight hook and ladder companies engaged in fighting the fire, the department utterly failed to cope with flames above the sixth floor. It was a pointed illustration that the old types of appliances known were helpless when the fire was above a certain height. The pumping stations and mains of the high pressure system were hurried to completion, and will be further extended as soon as additional appropriation can be provided. Already \$3,500,000 has been spent, four pumping stations—two in Manhattan and two in Brooklyn—have been built and equipped, and sixty-five miles of high pressure mains have been laid.

The four pumping stations are practically identical in capacity, the two in Manhattan and one of those in Brooklyn being connected with the salt water of the harbor as well as with the fresh water mains. While the system is called the "Salt Water System," it is expected that fresh water will be used except in cases of emergency. The duplex water supply is installed as a safeguard against accidents. Each station is equipped with five motor driven multi-stage centrifugal pumps. The mains are 12 and 24-inch cast iron pipe, and the two present stations are capable of delivering 30,000 gallons of water per minute at a pressure at the hydrant of 300 pounds per square inch. At a recent test of the Gansevoort station (Manhattan) the firemen connected up a line of 1,000 feet of the new 2½-inch high pressure hose. Even with this stretch of hose there was a pressure of 125 pounds delivered at the nozzle.

Chief Croker, of the fire department, was delighted with the tests, and calculates that there could be concentrated at any point near one of the present pumping stations a greater volume of water at a higher pressure than could be supplied by all the fire engines on Manhattan island. With but six of the ten pumps at work, it is calculated there could be taken from eight hydrants thirty-two lines of hose that would deliver streams that could be sent without trouble to the top of a twelve story building. Such an emergency will, however, hardly be necessary. Every tall building, under the law, must be supplied with standpipes, and every floor must have serviceable hose easily accessible. The policy is always to fight a fire from the inside.

In actual service it is proposed to handle this heavy pressure from the valve at the hydrant just as the engineer has handled his engine. A stream that would kill a man at 50 feet distance from the nozzle is too strong for any but the most stubborn blaze. The valve on the hydrant will regulate this so that any pressure desired can be delivered. A system that can turn out a stream as gentle as a garden hose or can throw a column of water on the roof of the seventeen story Metropolis Bank building—as was done in one of the recent tests—appears to be ideal for fire fighting.

The introduction of such a system, however, has occasioned an entire remodeling of fire hose construction. The old quality—which frequently burst under the engine pressure, would be worthless under the new system. The fire companies in New York are now being supplied with heavy 3 and 2½-inch hose, and with special wagons for carrying it. The hose wagon answers alarms just as the old engine used to do, and in three of the down town houses the engines have been entirely removed. When loaded with hose, carrying a full complement of men and the necessary equipment of nozzle tripods, pressure gages and connecting appliances, these wagons weigh six tons, or more than the heaviest engine built.

The specifications for the hose required for the new high pressure system are practically the same as those for other hose ordered by the New York fire department, and are severe. The tests made for the purchases of hose made since the Parker building fire have been rigid, and to succeed in selling the city only the best quality of material can be used. The hue and cry raised against the quality of hose in service at that fire has had the effect of arousing the department to the exercise of great caution, and there is little doubt that the \$250,000 spent for hose since that time has been for absolute value received. About one-third of this amount is intended for the high pressure service.

The specifications call for a tensile strength for the inner tube of 1,100 pounds per square inch, the calculation being based on a wall of an inch thickness. The inner tube and the cover must be made of at least 65 per cent. chemically pure, best Pará rubber, and the cover must have a tensile strength of 950 pounds per square inch. The inner tube must have a thickness of from 1-16 to 1-12 of an inch. A two-inch piece of either the inner tube or the cover must stretch to 12 inches, and after remaining stretched for 10 minutes recover its original size. When tested in 50-foot lengths under hydraulic pressure of 400 pounds to the square inch the expansion must not be more than ¼ of an inch, and the twist must not be more than one turn. The elongation of the length tested must not be more than 30 inches, and the friction must not exceed 20 pounds in pressure reduction. The duck between the two casings must be manufactured from the best sea island cotton. The warp must stand a strain of 300 pounds per square inch, and the filler must stand 375. Before the recent purchases 40 lengths of hose were given rigid tests, with the result that practically every one of them came within the specifications.

Speaking of this, the manager of a rubber company which has supplied a large amount of hose to the city of late said: "I do not know how the tests may have been made in times past, but I know that in the recent purchase made by the city, there was no chance for a faulty piece of hose to slip in. The engineers were diligent in their work, and every requirement in the rigid specifications was insisted upon to the letter. The city got good hose, and I do not think there is any likelihood of any trouble occurring on this account. The pressure test, I think, was double what will be required, even in the high pressure service. All of the hose sold is fully guaranteed for four years, and any section which bursts or otherwise breaks down within that period—unless it has been injured by some accident—must be replaced by the



company selling it. The city is amply protected, and it has bought the best."

The representative of another rubber company said: "Speaking for our company, I know that our material was all that could have been asked for, and in every test that was made our percentage was practically perfect. The specifications required 400 pounds pressure to the square inch. Our hose was built to withstand 800 pounds pressure. The outer casing and the inner tube were both made of the very best Pará, and all of our rubber material stood without fault the stretching tests required. I do not see how stronger hose could be built than the New York fire department is requiring us to make at this time."

The result of this introduction of the high pressure system means the retirement of the picturesque fire engine from the downtown district. Although it was the best thing of its kind for fighting flames in its day, the high pressure system offers a very much better remedy. The hose carriage is now given the right of way in certain sections over the old-time engines. Water can be turned on in every tall building at a higher pressure than any engine in the city of New York could ever furnish. The delays which traffic and congested streets offer to the arrival of fire apparatus are practically eliminated, because almost every building and certainly every block has its fire apparatus on hand. The racing horses and the clanging engines were a picturesque feature of city life, but, like many other picturesque features, they have been retired by the practical achievements of modern invention.

The fact that the chief of the fire department and all of the veteran fire fighters are delighted with the efficiency and the promise that the high pressure system offers indicates that it is an improvement that has come to stay. As the service is made better it will be extended, and it is not out of reason to expect that the fire engine will within a few years be relegated exclusively to the outlying sections of the city and to suburban districts.

Mayor McClellan, in his annual message to the board of aldermen of New York, dated January 4, said:

"The almost immediate effect on insurance rates is one of the most gratifying results of the installation of the high pressure service. On December 9 last the New York Fire Insurance Exchange ordered a general reduction of rates in the Manhattan high pressure zone. This reduction, I am reliably informed, will mean an immediate saving in premiums of \$500,000 a year, and is to be followed shortly by another reduction."

#### SCRAP RUBBER IN RUSSIA.

TO THE EDITOR OF THE INDIA RUBBER WORLD: In your issue of December 1 (page 87) I have read the article headed "Russian Tax on Scrap Exports." Regarding this subject I should like to say:

First, that it is still very doubtful whether Russia will yield in repealing the export duty on old rubber, and while such concession may be made after a while, it will not be very soon.

Second, if Russia should yield, it will have no effect on the price of old rubber shoes, because the stock of old rubber shoes in Russia is almost exhausted, and the rubber factories in Russia are now in need of much material.

The American rubber reclaiming works could only gain through it, since the Russian rubber factories will then not be able to compete with them in the sale of reclaimed rubber. Now the Russian rubber works buy the old rubber shoes by 1 ruble 50 copecks per pood (Russian weight) cheaper than the American rubber manufacturers, and as there is no export tax on reclaimed rubber in Russia, the Russian manufacturers are at present enabled to compete with the Americans. But if the export duty in Russia should be stopped, this will no longer be the case, for then the Russian manufacturers will get the old rubber shoes no cheaper than the American works.

Odessa, December 25, 1908.

MERCHANT.

#### THE OBITUARY RECORD.

**JOHN JOSEPH BANIGAN**, elder son of the late Joseph Banigan, a leading rubber manufacturer, died of apoplexy on December 31, 1908, at Mount Clemens, Michigan, in his forty-sixth year. Joseph Banigan was the founder of the Woonsocket Rubber Co., and later of the Joseph Banigan Rubber Co., and in the interval was president for three years of the United States Rubber Co. John J. Banigan was born in Roxbury, Massachusetts, July 7, 1863. He was graduated from St. John's College, Fordham (New York), and during the lifetime of his father was associated with the corporations controlled by the latter. He married Mary C. Davis, a daughter of the late Richard Davis, a prominent dry goods dealer in Providence, who survives with three sons—Joseph, Richard Davis, and John Joseph Banigan, Jr. Mr. Banigan's brother, William Bernard Banigan, died in February, 1901.

\* \* \*

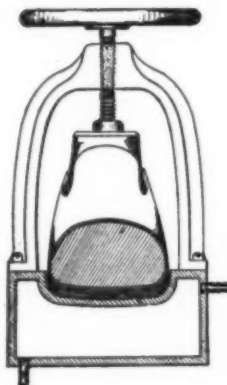
**R. LINDSAY COLEMAN**, who died recently at his home in Somerset, Virginia, was some time president of the Western Wheel Works (Chicago), an important bicycle manufacturing concern. When this company became a part of the American Bicycle Co., he was for a while president of the latter, at a time when it controlled a number of rubber tire factories. He was one of the receivers of the American Bicycle Co., in the first steps toward its liquidation.

\* \* \*

**FERDINAND HECHT**, since 1881 a member of the firm of George Borgfeldt & Co., importers of rubber goods in New York, died on January 4 in Berlin, where he represented the European interests of his house. He was born in 1853 at Nesselroeden, Germany.

#### A NEW RUBBER SHOE MACHINE.

**E. A. SAUNDERS** has always had original ideas and notably sound ones, and it is therefore of more than passing interest to the shoe trade that he has brought out a new shoe-making machine. To be really exact, it is not a shoemaking machine—it is a combination of a dry heater and a press. The press part engages only the sole and the heel, and the heat is so graduated that vulcanization takes place at the same rate as the upper, which is not in a press, but is cured in hot air. The mold-heater is exceedingly simple, and looks perfectly practicable. The product should be in appearance better than the ordinary shoe, the whole of which is cured in dry heat without pressure. The invention here referred to is covered by United States patent No. 905,105.



#### TARIFF CONVENTION CALLED.

**A** CALL for a National Tariff Commission Convention, to be held at Indianapolis, Indiana, on February 16-18, has been issued by a number of representative organizations, including the National Association of Manufacturers, the Merchants' Association of New York, Boston Chamber of Commerce, Western Association of Shoe Wholesalers, Farmers' National Congress, boards of trade and chambers of commerce in cities throughout the country, and various other bodies. The object is to promote the establishment of a permanent, non-partisan, semi-judicial tariff commission, for the purpose of making studies pertinent to the tariff question.

## The Past Year in the Crude Rubber Trade.

REVIEWED BY LONDON HOUSES.

THE London firm of Lewis & Peat, in their review of the rubber market for 1908, devote particular attention to the increased volume and increased regularity of the supplies of plantation rubber, which they believe to be used now by practically all manufacturers, large and small. In regard to the situation generally they say:

"With the greatly enhanced values of fine Pará and the enormously increased consumption shown by the heavy deliveries to all parts, consumers turned their attention to medium grades, and the whole of the enormous accumulated stocks disappeared and went into consumption. These facts speak for themselves and show the very healthy state of the rubber trade generally, notwithstanding the constant complaints of bad trade and slack business. Nine months ago we had enormous stocks and low prices; to-day we have exceedingly small stocks and excellent prices and a good demand.

"One result of the very heavy decline in the values early in the year of medium grades and wild rubbers (other than Pará) has unquestionably been to enormously decrease the production and collection of a great many sorts, and hence our stocks have not been replenished by them, and it is very doubtful if they will be, if supplies of Plantation are available and sufficient to meet the present large and ever increasing demand.

"It is impossible to give any forecast as to prices in the future, but we are of opinion that fluctuations will not be heavy for some time to come, and we look for a continued good demand both for fine Pará and Plantation—a demand sufficient to take and consume at satisfactory prices all the Amazon and plantations are likely to send us at present."

Lewis & Peat issue a chart of comparative prices of wild and plantation "Pará" rubber for the past four years. Prices of the two classes have invariably risen or fallen concurrently, though not always at the same rate. The price difference between wild and plantation rubber has diminished with considerable regularity. Thus in May, 1905, Plantation sold at a shilling above the highest quotation for wild rubber, while in the summer of 1908, for a brief while, the difference was less than 2 pence. The latter condition was exceptional, however. The highest quotation for wild Pará rubber during 1908, shown on the chart, was 5s. 5d. [= \$1.31.7], while Plantation sold up to 6s. [= \$1.45.9]. The lowest for Plantation during the year was 3s. 2d., while wild Pará declined to 2s. 9d.

\* \* \*

S. FIGGIS & Co. in their annual review likewise draw attention particularly to the development of plantation rubber as a market factor. They introduce comparative figures to indicate declining production in Africa and in most regions in America except in the Amazon valley—wild Pará rubber. "The rapid fluctuations and extraordinary rise in values," they say, "appear hardly due to natural or normal causes, but the world's demand has been more than equal to the reduced supply, and at some periods our stocks have been remarkably small, especially of fine Pará. Total stocks are now smaller than for many years. . . . English consumption of rubber has been very large, that of France and Germany good, Russia only moderate, and America much less till quite recently. We think invisible stocks must be large in America, owing to her very free buying this last three months. The European stocks are exceedingly small."

Lewis & Peat state that the bulk of the plantation crop now comes in crepe form, and they think it can be taken as the most satisfactory grade. S. Figgis & Co. refer to a further general improvement in preparation of plantation sorts, with more fine

clean crepe. They emphasize particularly the importance of sending in clean rubber, and, where practicable, of keeping separate the product of immature trees.

### THE HAVRE MARKET.

A REVIEW of the rubber trade at Havre for 1908 has been issued by Jean Roederer, broker, of that port, from which we quote:

"During the past year our market has not witnessed a very material development, the severe crisis that has prevailed during a portion of the year having rendered impossible the exportation of a portion of the supplies that were customarily sent here; in addition a marked decrease has occurred in the importations from Pará. The imports at Havre have been:

	1906.	1907.	1908.
From the French Congo.....Kilos	314,025	892,655	884,733
Other sources (except Pará).....	339,847	232,321	130,000
From Pará .....	3,738,055	3,339,147	2,483,444
Total .....	4,391,927	4,464,123	3,498,177

"The quality of the rubber imported from the French Congo remains excellent and it finds ready and profitable sale in this market. The status of the product, which was very uncertain at the end of the last year, was still worse in January and February, at one time Pará touching 2s. 9d. The consequence of this was an absolute lack of sale or selling under price of varied kinds, put in the background by the low price of Pará and Peruvian varieties. The demand only revived in March, when the American crisis appeared to have been inspired. Nevertheless, business did not attain any great development until autumn. Since then, the sales booked have been effected with the greatest activity. The considerable advance accorded to Pará did not maintain itself altogether and the year closed at 5s. to 5s. 2d."

### TOTAL IMPORTS OF RUBBER AT HAVRE.

	Kilos.		Kilos.
1897.....	1,814,000	1903.....	1,862,000
1898.....	2,138,000	1904.....	2,188,000
1899.....	1,856,000	1905.....	3,291,000
1900.....	2,350,000	1906.....	4,391,927
1901.....	2,241,000	1907.....	4,464,123
1902.....	1,948,000	1908.....	3,498,177

### CONGO RUBBER AND THE ANTWERP MARKET.

IN their annual review of the Antwerp rubber market for 1908 Messrs. Grisar & Co., the official brokers, again confine their remarks mainly to the decline of the natural supplies in the Congo Free State—since recently a Belgian colony—and the outlook for rubber cultivation there. First, however, may be introduced a table of the arrivals of rubber at Antwerp during the last ten calendar years:

YEARS.	Congo State.	Other Sources.	Total.
1899.....Kilos	2,992,414	410,416	3,402,880
1900.....	4,902,003	796,032	5,698,035
1901.....	5,417,456	431,742	5,849,202
1902.....	4,992,954	411,031	5,403,985
1903.....	5,180,401	546,082	5,726,483
1904.....	4,723,618	1,040,238	5,765,856
1905.....	4,442,607	1,271,121	5,713,728
1906.....	4,593,759	1,178,303	5,772,062
1907.....	4,346,141	708,332	5,054,473
1908.....	4,262,531	772,813	5,035,344

Messrs. Grisar & Co. say:

"The total importations of rubber into this market have been practically the same as those of the past year. The reforms effected in the economic administration of our new colony (Congo Free State), notably in regard to the collection of the tax, explain the slight decrease relating to importations. This, however, can hardly be more than transient.

"If it is true that some of the forests are almost exhausted, it is none the less true that other parts of the territory, which

have been barely exploited up to the present time in an effective manner, and which have consequently not been utilized, may be described as hiding veritable reserves of caoutchouc. It is therefore probable, anticipating the opening up of rubber plantations established at the instance of the Congo State, that the annual output of the past years, which has, so to say, not varied, will remain practically the same.

"It must, at the same time, be noted that in certain sections of the Belgian Congo, the quality of the rubber can hardly be said to have improved. It will be recalled that the attention of the authorities has been directed to this point and that special recommendations have been made in Africa, with a view to the remedy of a condition prejudicial to the reputation of Congo rubber.

"If the figures of the imports of the various qualities have not materially increased, the cause is to be sought in the acute crisis in the value of the article that has prevailed during the year. If the economical conditions governing the exploitation of the Belgian Congo have permitted, in spite of the low prices, regular exportation, it has not been the same with the output of other countries, where the regular exploitation has been very much restricted, and is in some instances completely interrupted, the low prices to which the product has declined not allowing of its profitable exportation. If, however, the quantity exported has been smaller, the quality has been better. This fact is set forth in the relatively higher prices always obtained for the better qualities. This is a valuable example for the future and the producers will do well to be inspired by these considerations, because if some day an increase in the volume of the world's output of rubber should depress prices in a serious and continuous fashion, only the best grades produced will be able to retain a position in the market.

"Plantations.—It is more and more evident that as far as rubber is concerned, the future of the Belgian Congo depends essentially on the plantations that are established there. It is asserted that the equatorial forests generally, constantly placed under contribution, are becoming more and more exhausted, which is making the exploitation increasingly difficult. This complex and troublesome problem has been definitely solved in the Far East, where the success of plantations surpasses all expectations, as much in the account of the vigorous growth and continuous yield of the trees as in regard to the quality of the product obtained. In addition, the output of these undertakings has always been profitable, even at the worst period of the financial depression, because of the low cost price; this continues to decrease in proportion and extent as the trees increase in size and yield more rubber."

The report here relates to the details of rubber planting in Ceylon and Malaya, covering, it is stated, 300,000 acres, and involving an investment of £15,000,000 [about \$75,000,000]. The exports of plantation rubber from those regions increased from 7,910 pounds in 1899 to 2,468,000 in 1907.

With regard to rubber planting in the Congo colony, as far as the government is exclusively concerned, the number of trees and vines set out may be summed up as follows:

	End of 1905.	End of 1906.	End of 1907.
Lianes (creepers) .....	8,575,000	10,150,000	11,564,077
Manihot, Hevea, Ficus, etc. ....	157,000	188,000	225,944
<i>Funtumia elastica</i> .....	753,000	1,187,000	2,417,631
Total .....	9,485,000	11,525,000	14,207,552

"The general results obtained in the Congo up to the present time," Messrs. Grisar & Co. remark, "are especially encouraging, as far as the cultivation of *Funtumia elastica* is concerned; so much so, that it has been decided to accord the preference always to this species in future plantations, and wherever local conditions are suited to this particular culture.

"The plantations of which we have spoken here are distributed throughout the colonial territory. But it will suffice to refer

particularly to three great centers established, respectively—in the Lower Congo, the Ubangi and the Lualaba-Kasai. The first of these, especially, located on the bank of Ganda-Sundi, is regarded as a model plantation. Established about two years, with a working force of about 300 people, it contains to-day 225,000 *Funtumia elastica*, 20,000 *Hevea Brasiliensis*, and 76,000 *Landolphia Klainii* vines, covering a superficial area of 346 hectares [=855 acres]. The work under way allows us to state that this agricultural center will take in, next spring, 200 hectares, with 130,000 more trees, which extends the superficial planted area of this agricultural enterprise to 546 hectares."

#### COMPARATIVE ANTWERP PRICES (FRANCS PER KILO).

	Dec. 31, '07.	Dec. 31, '08.	Increase.
Kasai, red, I. ....	9.00-9.40	12.35-12.85	36.70%
Loanda II kind. ....	8.10-8.40	8.75-9.25	10.11%
Kasai, black .....	9.00-9.40	12.35-12.85	36.70%
Equateur, Ikelemba, Lopori, etc. ....	9.00-9.40	12.35-12.85	36.70%
Upper Congo, ordinary. ....	8.50-8.80	11.00-11.50	30.68%
Urwimi Uelé .....	8.50-8.80	11.00-11.50	30.68%
Mongala strips .....	8.50-8.80	11.00-11.50	30.68%
Red thimbles (root rubber) ..	4.25-4.50	4.25-4.75	5.55%
a Pará fine .....	3s. 4d.-3s. 6d.	5s.-5s. 2d.	47.61%

[a In English money, per pound.]

[Ten francs per kilogram=87½ cents per pound.]

#### RANGE OF PARA RUBBER PRICES.

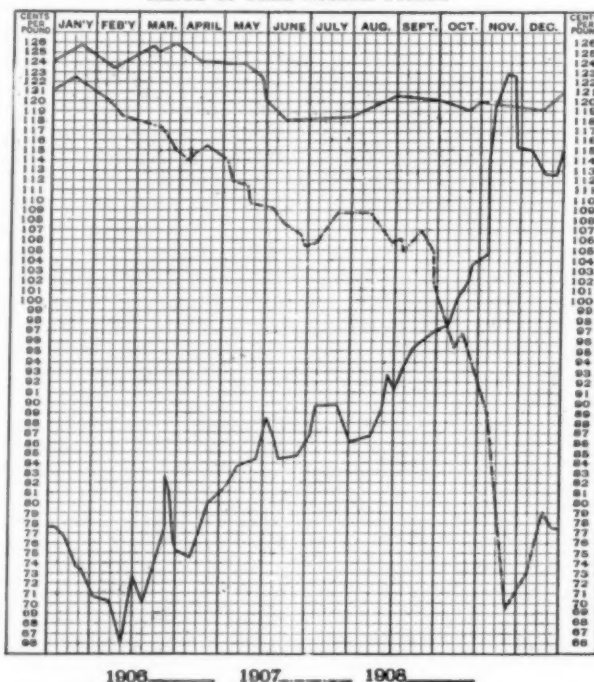


CHART SHOWING FLUCTUATIONS IN ISLANDS SPOT FINE PARA RUBBER AT NEW YORK, FOR THREE YEARS.  
[Copyright, 1909, by Henry A. Gould.]

WHEN James B. Angell, professor of modern languages in Brown University, over fifty years ago translated Dr. F. Lucdersdorff's essay on india-rubber from the German, it is doubtful whether he appreciated the importance to rubber science of its contents, or that he ever learned it later. It is probable, indeed, that he has forgotten the whole matter, in view of the busy life that he has led and continues to lead. For while Dr. Angell celebrated his eightieth birthday on January 7, he still fills the position of president of the University of Michigan, which he has held since 1871, after having previously done much work of importance in many lines—in the diplomatic world as well as in the development of educational institutions.



## The India-Rubber Trade in Great Britain.

By Our Regular Correspondent.

**D**URING the last year or two the government authorities have placed their contracts for a limited period of six months, instead of for the whole year as was formerly the rule. This really only amounted to having a right to change the contractor at the end of six months, if it seemed desirable to

### ADMIRALTY CONTRACTS.

do so, and further it allowed of certain orders being distributed among a larger number of manufacturers. Now, however, I understand the old practice is being reverted to, and contracts for delivery over twelve months will be placed. This will be somewhat later than in recent years, the new tender forms not being expected until early in January. I have not heard of any new regulation or alterations in the reformed chemical tests. With regard to the alcoholic potash extraction test I hear the usual stories of goods which do not pass it, going into store and consumption. As these stories arise, however, from trade competitors they must be accepted with some degree of reserve. With regard to the test itself, although an undoubted improvement on the old moist heat test, it could be modified with advantage, in my opinion, by the alcoholic extraction being preceded by an extraction with acetone.

THE last report of this Manchester company shows a profit nearly four times greater than in the preceding year, and allows of a dividend of  $7\frac{1}{2}$  per cent. being paid on both the ordinary and preference shares. A specific reference to this seems justified because the opinion has been freely expressed that it is becoming increasingly difficult for small concerns to compete with establishments of greater size and capital resources. In several cases this expression of opinion has found justification. Management, however, has no doubt a great deal to do with failure or success, and as the improved position of the Gorton company synchronizes with the appointment of Mr. George Spencer—for many years connected with Messrs. Charles Macintosh & Co., Limited—to the managing directorship it is a fair presumption that credit attaches to him.

### GORTON RUBBER CO., LIMITED.

I SEE from a paragraph on the subject in the December issue of THE INDIA RUBBER WORLD that it is suggested to put a comparatively high import duty on barytes coming into the United States in order to benefit the home mining industry.

### BARYTES.

Although barytes has never figured in England as a compound of high class rubber goods, it has always found regular application in the trade. I understand that its use in the American rubber trade has considerably increased, and after the paint trade the rubber trade is the principal producer. Whether there is any important increase in its use in the British rubber factories is a point on which I have no direct information, and am unlikely to obtain it easily. British barytes mining has, however, had a great jump in recent years, and it does not now rank as the unprofitable sort of business it was a decade ago. The output of crude barytes from the mines amounted to 41,974 tons in 1907, compared with 26,327 tons in 1904, and being the highest on record. The United States output in 1906 was 43,759 metric tons, and about 4,000 tons annually are imported. A considerable proportion of the British output is the carbonate of barytes, which is more expensive than the ordinary sulphate, and to the best of my knowledge is not used in the rubber trade. America hardly produces any carbonate. The two countries named are now the leading producers of barytes, Germany, France and Belgium coming next in importance. I shall not go further into technical matters, except to say that if the present demand keeps up there

will probably be an advance in prices. The difficulty in the American mining seems to lie in the fact that the product comes from a large number of small concerns widely scattered, and the freights to the grinding mills are often heavy. With such a low-priced mineral, moreover, it has not seemed expedient to embark capital on special machinery, and altogether there is an absence of the organization and method so noticeable in other branches of American mining. Much the same state of affairs had been the case in England, but with the increased demand the capitalist is taking the place of the Derbyshire "hillocker," who for long has earned a precarious livelihood by turning over the old lead mine dumps for "cawk," as it is called. Of course, barium sulphate in the precipitated form is a normal component of the lithophone, and this pigment has had increased application both in the paint and rubber trades in recent years.

A COMPARATIVELY modern procedure in rubber works practice is the issue of tender forms for various rubber chemicals to manufacturers and dealers who are supposed to be in a position to quote. In many cases a close specification is given of the requirements, both as regards physical properties and chemical composition. Owing, in many cases, to keen competition among the suppliers of rubber chemicals who do not always manufacture the goods themselves, prices have come down a good deal in recent years, and profits have shrunk to a corresponding degree. In these circumstances it is not surprising that dealers are not very keen on entering into contracts which under the most favorable conditions yield a very meager profit now that they are expected to supply to specific requirements, the details of which may be quite novel to them. They are told, for instance, that in the case of a certain substance the specific gravity must always be 5.5, nothing being said as to the degree of latitude allowed. Then a particular mineral must be quite free from a certain impurity. As a matter of fact, very few commercial chemicals are quite free from impurities. I think the term commercially free should be used, otherwise the buyer who wished, for any particular reason, to get out of a contract could depend upon finding traces of the impurity if the analysis was made upon sufficiently large quantity of material. The new procedure will, of course, affect the middleman, with his small margin of profit and his ignorance of the details of manufacture of what he sells, more than it will the actual manufacturer. As in many other industries the middleman has become of less importance in the rubber chemical trade of late years than was formerly the case, the more general employment of chemists in the works and keener buying having combined to effect his effacement. Now he will require the actual manufacturer to indemnify him against claims, a request which may not be readily acceded to if only because it has not been customary to say more about the composition of the goods except that they are the best quality.

THE question of the recovery of the textile fabric in reclaiming rubber from textiles and insertion goods has long been before the trade, but as far as I can gather there is still no regular business being done between rubber reclaimers and such firms, notably in West Yorkshire, who deal in what may be termed textile scrap. An important desideratum is that the textile material must be entirely free from rubber, and the penalties attaching to a contravention of this requirement were too great in the case of one process I have in mind to encourage the reclaimer to enter on the proposed business. As regards waterproof cuttings the difficulty has always been the due separation of the woollen and

### TEXTILES IN RUBBER RECLAIMING.

cotton fabrics which find separate markets. The most promising reclaiming, or rather rubber scrapping, process in recent years, as far as the sale of the canvas fabric is concerned, is certainly the Penther patent machine now working at Leyland. Here the fabric is completely separated in the form of fluff from the rubber, and it was understood that it found a ready market at a satisfactory price. To a certain extent this has been the case, but I understand that for certain reasons, which it might not be altogether politic to give in detail, the fluff is now no longer sold. Unlike certain chemical manufacturers, the Penther process is not dependent on the sale of a low class by-product for its continued existence, and in the light of what has occurred at Leyland it may reasonably be assumed that there is more sentiment than commercial importance about the whole question of the sale of the fabric as well as the rubber by reclaimers. Of course, at first sight it does seem wasteful to destroy apparently valuable matter, but when we consider the restricted market for second-hand fabric, and the fact that the buyers as a class are without the financial resources of a Rothschild, those chiefly concerned may not be worthy of blame after all. Certain enthusiasts are always cavilling at the loss of ammonia escaping up the chimney of a fire place or stove while ignoring the difficulties and expense involved in its recovery. Ammonia will continue to run to waste from this source, and it looks as if the fabric in rubber reclaiming may be expected to continue for much the same reason, to run to waste.

COLONEL RICHARD K. BIRLEY, whose connection with Charles Macintosh & Co., Limited, is known throughout the rubber trade, has been appointed by the Lord Lieutenant of Lancashire as a deputy lieutenant for the county. It is now a very

long time since the Lord Lieutenant of a county and his deputies had any real concern with the defense of the country, but under the new Territorial army scheme the positions are to be held by men who have had military training or are concerned in some capacity with the new home army. Colonel Birley, who is a C. B., and has the V. D., has long been associated with the Manchester artillery volunteers (now Territorials), and has a son in the Royal artillery—the regular army. The uniform of a D. L. is a somewhat striking one, a sort of compromise between that of an admiral and a general.

#### BALATA IN BRITISH GUIANA.

THE history and economy of the balata industry in British Guiana during the past year derive much of their interest and importance from the fact that the licenses have been extended from one, two, and three years to fifteen years, thus affording a more fixed tenure. This concession was made on the application of the holders of licenses, who hope that thereby capital will be attracted more readily. The weather was favorable during the year; operations were more extended; more laborers were employed, with the happy result that the export for the year has been larger than it ever has been. Colonel Link, who represents English capitalists, has been negotiating with a view of buying out a good many properties, and it is entertained that if he succeeds in amalgamating them he will put the industry on a sounder economic basis. There would be a saving in carriage and supervising expenses, and there is the probability that the management would be able to put up the price in England, where the demand for balata during the year has been moderately good. All has not gone well with the laborers, and the feeling is that the labor laws should be more stringent. Many of the best laborers have been attracted, by promises of better pay, to Surinam (Dutch Guiana), where the laws are so strict that the men, it is said, are little better than slaves, and can only leave with the greatest difficulty. The balata exported the calendar year 1908 amounted to

1,124,958 pounds, as against 991,280 in 1907. The exports for the past five financial years were:

In 1903-04.....	pounds	531,399
In 1904-05.....	"	501,509
In 1905-06.....	"	550,691
In 1906-07.....	"	634,242
In 1907-08.....	"	973,269

#### NEW TRADE PUBLICATIONS.

"AIRSHIPS" is a title of a brochure describing the application to the balloons and aeroplanes which have figured largely of late in the public mind of the rubber balloon fabric made at the Continental works at Hanover, Germany. Incidentally, the qualities of "Continental" tires are mentioned. The booklet comes from the London branch, THE CONTINENTAL TYRE AND RUBBER CO. (GREAT BRITAIN), LIMITED. [8" x 5". 16 pages.]

THE annual installment of Price Lists of the various Boot and Shoe companies subsidiary to the UNITED STATES RUBBER CO. was distributed early in January. The matter of prices is treated on another page of this paper. New illustrated catalogues have not been issued this season, last year's edition having been designed to serve for two years, and a sufficient number having been printed to last over.

HOOD RUBBER CO. (Boston), issues an illustrated catalogue on Rubber Boots and Shoes, dated January 1, 1909, covering all their products under "Hood" and "Old Colony" brands. [3½" in. x 6". 61 pages.] Also gross price list, of 12 pages.

KAUFMAN RUBBER CO. (Berlin, Ontario), issue their first trade publication, net price list of "Life Buoy" rubbers, for the 1909 trade. It covers a very full line, and only net prices are quoted. [3½" x 6¼". 20 pages.]

DAVOL RUBBER CO. (Providence, Rhode Island) have issued a new illustrated catalogue of Davol rubber goods, for 1909-'10, which is the most extensive and complete list of the kind yet got out by his long established and yet most progressive house. It is devoted to druggists' sundries and surgical goods, and articles for household use in connection with these lines. It is interesting, in comparing this new catalogue with its predecessors for 10 years past, to note not only the additions to the old lines, but new features in pyrographic outfits, camera bulbs, gloves for tanners' use, veterinary goods, and distinctly new forms of water bottles, syringes, air cushions and the like. The size of the Davol catalogue has been increased 50 per cent. since 10 years ago, when they were already among the largest published in the sundries trade. [9" x 6". 146 pages.]

A. SCHRADER'S SON, INC. (New York), issue an illustrated catalogue of improved diving apparatus and submarine appliances, a class of goods rendered serviceable solely by reason of the incorporation in them of many items of rubber—diving dresses, air hose, gaskets and the like. [6" x 9¼". 16 pages.] Also, a price list of general hose fittings and diving apparatus, the hose items being for various purposes, from fire department use to bathroom fittings. [4½" x 6¾". 30 pages.]

CONTINENTAL CAOUTCHOUC CO. (New York) issue an interesting booklet devoted to their demountable "ready flated" tires, which is amply illustrated. [9½" x 7". 40 pages.]

#### ALSO RECEIVED.

GEORGE P. CLARK CO., Windsor Locks, Connecticut.—Clark's Wheels and Casters [with rubber tires]. 24 pages.

Joseph Dixon Crucible Co., Jersey City, New Jersey.—Dixon's Graphite Lubricants. 8 pages. Dixon's Motor Lubricants. 20 pages.

The Seamless Rubber Co., New Haven, Connecticut.—"Kantleek" Automobile Rubber Sundries. 11 pages.

The Fisk Rubber Co., Chicopee Falls, Massachusetts.—Fisk Bicycle Tires. Price List. 20 pages.

G & J Tire Co., Indianapolis, Indiana.—Motorcycle Tires, 1909. 22 pages.

The Allen Auto Specialty Co., New York.—Allen's Specialties for the Motor Car. 16 pages.

## Some Rubber Interests in Europe.

### LARGE DUNLOP MANUFACTURING PROFITS.

AT the tenth annual meeting of the Dunlop Rubber Co., Limited (London, November 27), the reports showed net profits for the year ended August 31, 1908, of £302,918 [= \$1,474,150.45], which permitted the declaration of dividends for the year of 100 per cent., the same as for the preceding twelve months. The Dunlop Rubber Co. is a subsidiary of the Dunlop Pneumatic Tyre Co., Limited, constituting the manufacturing division of the latter. The capital is £220,000 [= \$1,070,630] in £1 shares, of which 181,881 are held by the Dunlop Pneumatic Tyre Co. The remaining 38,119 shares, not issued until March, 1907, are held by individual shareholders in the Pneumatic Tyre Company. The total investment to date by the tire company in the manufacturing company is stated at £225,437, while the dividends have amounted to £768,762. The market value of the 181,881 shares now held by the tire company was stated recently at about £1,330,000. The Dunlop Rubber Co. was operated for the first year at a loss of £724 1s. 7d., since which time the yearly profits have been:

In 1901.....	£14,097	In 1905.....	£144,497
In 1902.....	54,854	In 1906.....	209,069
In 1903.....	88,823	In 1907.....	300,060
In 1904.....	157,517	In 1908.....	302,918

[The Dunlop Pneumatic Tyre Co., Limited, in addition to the income here referred to as derived from manufacturing, have their profits as a tire selling concern, not to mention their rubber trade interests outside of Great Britain.]

The chairman (Mr. Harvey du Cros, J. P.) referred to the adverse conditions of the cycle and motor trades during the year, though these conditions were not regarded as serious or lasting. The company made special efforts in developing their general rubber goods trade, with the result that the net profits for the year were greater than in any former period. The company anticipate a great benefit from the development of the taxicab interest. There has been created under the direct control of the Dunlop Rubber Co. a company prepared to undertake the maintenance and running of cabs of any make, foreign or English, from which alone a profit is assured, aside from which it is believed that the close relation into which the company will be brought with the cab proprietors will tend to the wider introduction of Dunlop tires in this field. Mr. du Cros referred briefly in his remarks to the interest of his company in a new mill in Japan in course of erection, and which was expected to be in full swing before the next annual meeting.

The report of the Dunlop Pneumatic Tyre Co., Limited, for the year ended September 30, 1908, shows profits, after providing for fees, depreciation, and debenture interest, of £192,941 [= \$938,947.38]. Dividends as follows: Preference shares, 5 per cent., amounting to £49,748; ordinary shares, 8 per cent., amounting to £49,998; deferred shares, six months at the rate of 5 per cent., and six months at the rate of 11 per cent., amounting to £39,996, the total dividend distribution being £139,742 [= \$680,054.44]. It is evident that the income of the company has been gained largely from the profits of the Dunlop Rubber Co., Limited, but on this point the report affords no information. It would be manifestly inaccurate to add the reported profits of the Rubber company and the Tyre company as representing the net income of the Dunlop interests.

The Dunlop Rubber Co., Limited, is the subject of a leading article in *The Financier* (London), headed "Dunlop Finance," and in which appears an analysis of the company's accounts indicating the payment last year of £24,526 [\$119,355.78] in managing directors' commissions. The joint managing directors are Messrs. Harvey du Cros and Arthur du Cros.

### SILVERTOWN COMPANY PROFITS.

THE report of The India-Rubber, Gutta-Percha and Telegraph Works Co., Limited, presented at the annual meeting on December 15, shows a net profit for the year of £52,946, against £56,809 14s. for the year ended September 30, 1907. The general business showed an increase over the year previous, but the competition on the Continent had adversely affected the tire trade of their French works, and the company had not escaped the effects of depression in the electrical industry. There had been little doing in submarine cable work. The dividends for the year were, as usual, 10 per cent. An issue of £12,500 additional in preference shares was made during the year.

### PALMER TYRE, LIMITED.

THE profit for the year ended September 30, 1908, was £10,365, against £7,684 for the preceding year, and the dividend 12½ per cent., against 5 per cent. The company is owned by the India-Rubber, Gutta-Percha and Telegraph Works Co., Limited.

### GORTON RUBBER CO.'S GOOD YEAR.

THE Gorton Rubber Co., Limited, of Openshaw, Manchester [see *THE INDIA RUBBER WORLD*, November 1, 1908—page 41], made a good showing for the year ending September 30. The balance available for distribution was £3,993 [= \$19,431.93], and the directors recommended a dividend of 7½ per cent. on ordinary and preference shares. During the year the capital was increased from £25,000 to £30,000 [= \$145,995]. The company make tires.

### AN ENGLISH OWNED FACTORY IN AUSTRIA.

A NEW rubber factory in Austria is registered under the style Steinklammhofer Gummi-Werke G. m. b. H., with headquarters at Vienna, and 200,500 kronen [= \$40,701.50] capital. The situation is some 50 miles east of Vienna, on a stream well suited for generating electric power. The business is owned and will be controlled by G. W. Laughton & Co., Limited, of Clayton, Manchester, manufacturers of mechanical rubbers and also reclaimed rubber and substitutes. Plant was supplied by Francis Shaw & Co., of Manchester.

### BRITISH RUBBER NOTES.

AT the seventh annual meeting of New Pegamoid, Limited (London, December 8), a better financial showing was made than for some time past, due in part to the lower price of cotton, and particularly of camphor. The dividend declared was 3 per cent. for the year, absorbing £9,000. For the year ending September 30, 1907, no dividend was declared.

Hood Rubber Co., Limited, registered in London, September 16, 1908; capital £5,000 [= \$24,332.50]. Objects, to buy and sell rubber and other footwear, and to adopt an agreement with the Hood Rubber Co., (Boston) and C. W. Randall, hitherto representative in Europe of the Hood Company. The first three directors are: C. W. Randall, Frederic C. and R. P. Hood.

W. & A. Bates, Limited, of the India Rubber Works at St. Mary's Mills, Leicester, under date of November 3, advise *THE INDIA RUBBER WORLD*: "We have the pleasure to inform you that we have this day appointed as additional directors of this company Mr. Alfred Henry Faulkner and Mr. Ebenezer Healey, junior. The original directors, namely, Mr. William Henry Bates, Mr. Hugh Faulkner, and Mr. Phillip H. Lockhart, retain all their original holdings and responsibilities in the company."

The gross profit of R. & J. Dick, Limited, for the business year was £63,411, and the net profit £40,124 [= \$195,263.45]. The preference dividend was 5½ per cent. A dividend was paid on the ordinary shares for the period from February 20 to August 31, at the rate of 4 per cent. per year.



## The Editor's Book Table.

MANUAL OF THE PLANTER IN MALAYSIA. PARA RUBBER Cultivation.—*Hevea Brasiliensis*. [Also: Manuel du Planteur en Malaisie. Culture du Caoutchouc de Para.] By C. Mathieu. Paris: Chalmel. 1909. [Paper. 4to. Pp. iv + 201. Price 18 francs.]

IN view of the volume to which the literature of rubber culture has attained, it would hardly be expected that so much new matter would be found in a single book as our author has presented here. Its chief merit, however, does not lie in the newness of any feature, but in the compilation with the new of so good a summary of what has been printed on the subject hitherto. We believe that no other book in the same field covers the planting of rubber so comprehensively, though as its title indicates, it is designed for planters of *Hevea* in the Far East, and has a less practical bearing upon planting elsewhere or of other species. M. Mathieu begins with the question of location and environment, the choice of soil, the details to be considered in housing the administration and working forces, and many other practical matters which have to do with a rubber plantation, but which do not always receive proper attention with sufficient promptness. Plans are given of buildings and estimates of costs; the labor question as it exists in the Federated Malay States is dealt with fully, and so on. Then the matter of clearing away forests is taken up, and in proper order all the details of rubber culture from planting the seed to extracting latex and preparing and shipping rubber and marketing it. The work ends with some estimates of cost for opening and maintaining a plantation, which will be useful at least in suggesting to intending planters the details under which expenditures may be expected to be called for. The book contains a few pages of statistics, well arranged and informing. The illustrations are numerous and good.

The book is printed in both English and French, but neither part is a translation from the other. The author explains that the French text was an afterthought, and was written while the English was going through the press, and that in some respects it is the more up-to-date section of the book. The value of the work is enhanced by the fact that its author was one of the earliest planters of *Hevea* in Malaya.

EXPOSICAO COLONIAL DE ALGODAO, BORRACHA, CACAU E Café (Abril a Maio de 1906). Catalogo sob a Direcção de Ernesto de Vasconcellos. - - - Lisbon: 1906. [Paper. 8vo. Pp. xxiii + 104.]

THIS pamphlet, which is a record of an important undertaking for the promotion of Portuguese colonial interests in Africa, was compiled by the general secretary of the Geographical Society of Lisbon. The *Borracha* is of course india-rubber, and the details regarding the 80 exhibits of this material is of value for permanent reference for those interested in the distribution of native rubbers in Angola, Mozambique and Portuguese Guinea, besides which there are notes on products of rubber plantations.

KALENDER FUER DIE GUMMI-INDUSTRIE UND VERWANDTE BETRIEBE 1909. . . . von Edgar Herbst, Fabrikdirektor. Mit der Beilage: Jahrbuch der Kautschuk-Industrie. Berlin: Union Deutsche Verlagsgesellschaft. [1909.] [Leather. 24mo. Pp. 460. Price, 4.50 marks.]

THIS comprehensive annual is intended to be helpful in every branch of the rubber trade, whether in the factory, or administrative office, or to the salesman of rubber goods. Comparative prices of raw rubber are given in English, American, German and French money; temperature equivalents by the Fahrenheit and other scales; tables of loss in washing of rubber; changes in customs duties on rubber goods in different countries during the year; statistics of German imports and exports of rubber goods; patents laws in different countries and recent information under various other headings—all concise, accurate, and up to date. The literary section has to do with the latest results in chemical research as related to rubber, including references to

the principal publications appearing in this branch during the year. There is a summary also of the more important patents relating to rubber. The publishers named on the title page are the proprietors of the *Gummi-Zeitung*.

RUBBER. ITS CULTIVATION IN CEYLON, MALAYA, AND JAVA. Report of Observations Made by Fred T. P. Waterhouse, Illustrated by Photographs Made by Him. Issued by the Hawaiian Rubber Growers' Association. [Honolulu]: 1908. [Paper. 8vo. Pp. 53.]

THE title fully explains this brochure, except that it does not indicate the excellence of the 32 photographic views of plantation rubber in the Far East, including Ceara rubber trees of 20 and 23 years.

THE UNIVERSAL STANDARD GRADING OF SCRAP RUBBER. By Alfred W. Leslie. [London, 1908.] [Cloth. 12mo. Pp. 46. Price, 2 shillings 6 pence.]

THIS little volume embodies a paper read at the rubber congress in connection with the International Rubber and Allied Trades Exhibition, at the Olympia, London, last October.

HENDRICKS' COMMERCIAL REGISTER OF THE UNITED STATES, for Buyers and Sellers. Especially devoted to the Interest of Architectural, Mechanical, Engineering, Contracting, Electrical, Railroad, Iron, Steel, Hardware, Mining, Mill, Quarrying, Exporting and Kindred Industries. - - - New York: Samuel E. Hendricks Co., 1908. [Cloth. Large 8 vo. Pp. LXXXII + 1240. Price, \$10.]

THE fact that this business man's reference book has appeared regularly under the same management for seventeen years is in itself an indication of merit. The work contains upward of 350,000 names and addresses, classified under 33,684 trade headings—numbers which far exceed those for any preceding issue. We notice 118 different headings for rubber goods, from rubber aprons to rubber window cleaners. We do not understand that the work is offered as a complete American trade directory, but care is taken in the selection of material for it, and we should consider it difficult for any one consulting the work to look under any heading without finding a sufficient number of addresses to be helpful in the matter of looking up business opportunities.

### OTHER BOOKS RECEIVED.

MISSOURI BOTANICAL GARDEN. NINETEENTH ANNUAL REPORT. St. Louis: 1908. [Cloth, 8vo. Pp. 287 + 25 plates.]

INTERNATIONAL CABLE DIRECTORY OF THE WORLD. IN CONJUNCTION WITH Western Union Telegraphic Code System. New York and London: International Directory Co. 1908. [Cloth. 4to. Pp. 830. Price, \$7.30.]

REPORT OF THE CHIEF SIGNAL OFFICER, UNITED STATES Army, to the Secretary of War. [For the fiscal year ended June 30] 1908. Washington: Government Printing Office. 1908. [Paper. 8vo. Pp. 39 + map.]

THIRTY-FIRST ANNUAL REPORT OF THE BUREAU OF LABOR Statistics, to the Seventy-seventh General Assembly of the State of Ohio. For the year 1907. Springfield, Ohio: State Printers. 1908. [Cloth. 8vo. Pp. 523.]

### IN CURRENT PERIODICALS.

REPORT on the Cultivation of Rubber in Ceylon and the Federated Malay States and Johore. By Fred T. P. Waterhouse. =*The Hawaiian Forester and Agriculturist*, Honolulu (V-11 Nov., '08.) Pp. 251-303.

Hawaiian Rubber Growers' Association Annual Meeting. [Reports and papers read.] =*The Hawaiian Forester and Agriculturist*, Honolulu. (V-12 Dec., '08.) Pp. 307-324.

Donnees Nouvelles sur le *Bleekrodea Tonkinensis*. [An account of an important rubber bearing species in French Indo-China.] =*Bulletin Economique*, Hanoi. XI-74 (Sept.-Oct. '08.) Pp. 520-522.

Electric Cables. By H. W. Fisher. [The dialectic strength of insulating materials and the grading of cables.] =*Proceedings of the American Institute of Electrical Engineers*, New York. XXVII-10 (Oct. '08). Pp. 2-5.

Insulating and Sheathing High Tension Underground Cables. By Henry Floy. =*Electrical World*, New York. LII-14 (Oct. 3, '08). Pp. 732-733.

Rubber in Hawaii. By W. A. Anderson. [A review of plantation progress; illustrated.] =*Paradise of the Pacific*, Honolulu. XXI-12 (Dec. '08). Pp. 31-34.

Rubber and Its Relatives. [Includes balata, gutta-percha, and the like; illustrated.] =*Bulletin of the International Bureau of the American Republics*, Washington. XXVII-6 (Dec. '08). Pp. 990-1010.

## New Rubber Goods in the Market.

### RUBBER BOUND SHAVING BRUSH.

THE handle of this brush is made entirely of hard rubber, and being unaffected by constant use in water and soap, it does not swell, crack, or burst. The bristles are set and vulcanized in a solid setting of hard rubber, eliminating any danger of their shedding. The setting is surrounded by a special composition white metal ferrule, tapered on the inside for additional strength, and threaded on the outside, permitting by means of a threaded recess in the end of the rubber handle the ready attachment or detachment of handle or brush. This construction, moreover, permits the use of a new brush part with an old handle. The white metal ferrule is not subject to rust or corrosion, and, being elastic, will yield to the swelling of the bristles instead of bursting. This brush, which is the invention of Mr. H. V. Hardman, who is widely known in the rubber trade, has been on the market for some months, and the demand is stated to be constantly increasing. [Rubber-Bound Brush Co., Belleville, New Jersey.]



RUBBER BOUND SHAVING BRUSH.

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### PINEOLEUM OIL NEBULIZER.

THIS nebulizer is especially constructed with the idea in view to applying the nebulized oil without force to the mucous membranes. The point of atomization is as far away as possible from the nasal cavities, whereas in many other atomizers and



PINEOLEUM OIL NEBULIZER.

nebulizers the spray producing point is placed within the nose. The metal parts of this nebulizer are nickel plated and polished. The name worn by the article is that of a special inhalant marketed by the same firm. [The Pineoleum Co., Greenwich, corner of Tenth street, New York.]

### MEAD'S S. T. SELF-FILLING FOUNTAIN PEN.

THIS is a new pen, the patentee of which is experienced in the rubber trade, and particularly in the manufacture of goods in this line. The "S. T." in the name of the pen means "simply twist"—the idea being that either to fill or empty the pen the cap is twisted slightly to the left or to the right, as the case may be, reversing the operation after the pen is filled or emptied. The simplicity of the operation is accompanied by the great advantage that there are no parts that can get out of place. The cleaning of the pen is accomplished by simply filling it with water and emptying it again. [Mead Fountain Pen Co., No. 107 John street, New York.]



MEAD'S S. T. PEN. Co., No. 107 John street, New York.]

### SAVAGE PROTECTOR AND EXCLUDER.

THIS patented Protector and Excluder attached to a felt boot or sock, and then made into a "combination" with rubber shoes, makes for the use of lumbermen or others much exposed to snow, slush, and mud, an article not surpassed from a practical standpoint by any other combination footwear. This protector and excluder is made of No. 6 stuff, heavily coated on both sides, and so cut that it can be easily trimmed up for the placing on of the rubber and then turned down and buckled over the top of the rubber. A band of duck sewed to the boot still further prevents the infiltration of snow or water and makes the protection still more effective. [F. W. Savage Rubber Co., No. 36 Lincoln street, Boston.]



SAVAGE PROTECTOR AND EXCLUDER.

### THE NEW LACED FELT BOOT.

THERE has been introduced to the trade for this season a new article in the line of felt boots, the special feature of which is that it is laced, as indicated in the illustration. The new feature renders this line of goods particularly well adapted for the use of all who are exposed to severe cold weather. It makes a graceful warm felt boot for a chauffer. The new laced felt boot has a leather top and leather front stay, snow excluding bellows, and extra strong laces; it fits close to the leg, and is light gray in color. It has a tan pull-on web strap. These goods have already met a large sale. [Medford Woolen Manufacturing Co., Medford, Massachusetts.]



THE NEW LACE FELT BOOT.

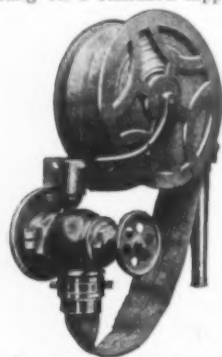
### RUBBER SHOES FOR METAL CHAIRS.

A VERY large business is done nowadays in metal furniture, to the use of which there was originally the objection both of noise and of wearing some floor surfaces on which it might be placed. There are metal chairs for many purposes, soda counter stools, round tables for cafes and the like, typewriter tables, children's furniture, and very many other articles of metal furniture, all with their advantages, while the single disadvantage is overcome

by the use of "rubber feet," which are supplied by one of the leading rubber manufacturing companies. These are retailed at 80 cents per set of four. [Royal Metal Manufacturing Co., No. 1817 Dearborn street, Chicago.]

#### STANDARD SWINGING HOSE REEL.

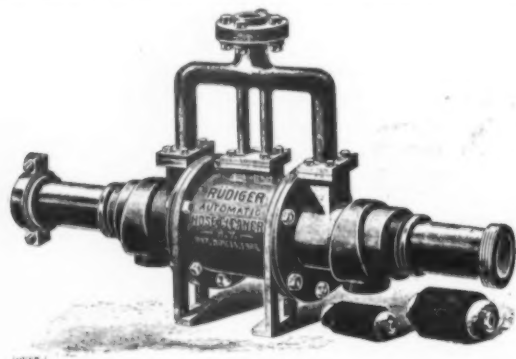
THE Standard swinging fire hose reel here illustrated, when hung on a standard nipple clamp, occupies a minimum of space, thus leaving clear headroom below the valve, while at the same time at a convenient height to operate. Hubs on these reels are so constructed that hose can be coiled on them without folding. Hose manufacturers always coil hose; they never fold it, as they know that every fold in any kind of hose injures it, and lessens its usefulness. These reels are strong and ornamental, as well as practical; they do not cost more than others, and are easy to put up. They are aluminum bronze finish on iron unless otherwise ordered. [Lyman D. Jones, No. 192 West Broadway, New York.]



STANDARD SWINGING HOSE REEL ON NIPPLE CLAMP.

#### THE RÜDIGER AUTOMATIC HOSE CLEANER.

A VERY ingenious and effective appliance for thoroughly cleansing brewer's hose is shown in an accompanying illustration. A length of hose to be cleansed is coupled to the open ends of the pressure pump after one of the rotary brushes has been placed inside of either the hose or the metal end of the apparatus. When securely coupled, water pressure is turned on from the



RÜDIGER AUTOMATIC HOSE CLEANER.

top, driving the brush the entire length of the hose where it trips a valve, sending the water in the opposite direction. It will be seen that the brush travels back and forth, shuttle fashion, through the inside of the hose until it is thoroughly cleansed. The body of the brush is made of brass and the cleansing part is of heavy bristles. It is made to fit 1, 1¼, 1½ and 2 inch hose. [J. H. Rüdiger, No. 217 West street, New York.]

#### BRIEF MENTION.

SOMETHING new in the rubber footwear line is an acid boot, designed to be worn in acid works, powder works, or other places where sulphuric acid is an element. The compound used in these boots is especially adapted to resisting the effects of acids. This boot is made only by the Boston Rubber Shoe Co. The same company have been at work upon a special boot for the use of postmen, and a number of sample pairs are in use by members of the service. Boots worn by letter carriers must be constructed for very hard usage.

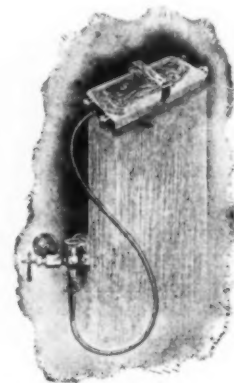
The Kinnell emergency overshoe for horses invented by George N. Kinnell, a veterinary surgeon of Pittsfield, Massachusetts, and which is being manufactured extensively for use on horses on icy streets, is merely a chain "tread" attached to a leather belt, which can be quickly buckled on and as quickly taken off the horse's foot. No rubber enters into its construction.

#### THE KNICKERBOCKER SPRAY BRUSH.

THIS spray brush for use in the bath in a variety of ways, consists in the first place of a great number of rubber "teeth" or "bristles," which are hollow, and through which the water used,

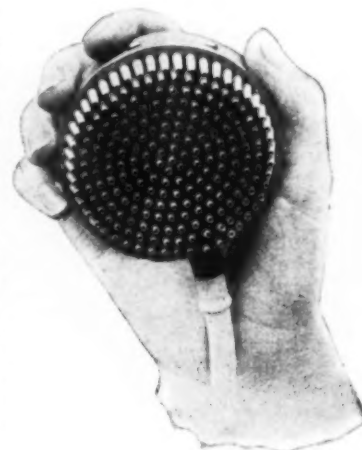


KNICKERBOCKER SPRAY BRUSH, No. 3.



BRUSH ATTACHED TO FAUCET.

of any desired temperature, trickles in tiny streams. The use of the appliance is rendered more pleasing to the bather by the fact that the brush possesses a maximum of flexibility by being rubber backed. In other words, the entire brush is of rubber, and the tubing by which it is connected with the bathtub or other faucet is, of course, rubber. There are hundreds of these tiny rubber teeth in each brush, and the fact that the brush is made of rubber renders its application to the body more agreeable than is true of brushes made of any other material. Besides, the fact that water is flowing through the brush all the while keeps the latter constantly clean, which renders the bath itself a cleansing process to a degree not attained when such brushes are not used. The brush may be rectangular in shape or circular, as desired. Each is provided with a flexible strap handle at the back, while it is adapted also to receive a rigid extension handle which may be attached to or detached from the brush. This may be used for applying the brush to portions of the body, not so conveniently reached otherwise. Some of these brushes contain as many as 600 rubber teeth. [The Progress Co., Rand-McNally Building, Chicago.]



KNICKERBOCKER SPRAY BRUSH, No. 5.

SEND for a copy of the Index to "Crude Rubber and Compounding Ingredients."



## Recent Patents Relating to Rubber.

## UNITED STATES OF AMERICA.

ISSUED DECEMBER 1, 1908.

- N**O. 905,189. Tilting. C. E. Hyke, Goshen, Indiana, assignor of one-half to Western Rubber Co.  
 905,197. Attachment for syringes [involving hot water bag]. C. L. Lettler, Sioux Falls, S. D.  
 905,204. Tire fastener. [For retaining pneumatics.] J. D. Maxwell, Tarrytown, N. Y.  
 905,239. Elastic or pneumatic tire for road vehicles. [With studded tread.] H. J. Scott, London, England.  
 905,257. Pneumatic tire. [With tread of flexible puncture-proof material.] L. J. Westness, Milwaukee, Wis.  
 905,323. Overshoe fastener. E. H. King, Pittsburgh, Pa., and S. H. King, Providence, R. I.  
 905,324. Overshoe fastener. *Same*.  
 905,555. Tire armor. [Spring metal anti-slipping plates.] W. A. Mix, Walla Walla, Wash.  
 905,584. Pneumatic tire. [With metal plate protective armor.] F. Richardson, Providence, R. I.  
 905,671. Rubber tire setting device. W. W. Edmisten, Pendleton, Ore.  
 905,709. Toe pad for horseshoe tips. P. Kiernan, Minneapolis, assignor of one-half to J. Henderson, Duluth, Minn.  
 905,582. Automatic air brake hose coupling. C. W. Rhodes, assignor of one-half to H. G. Elliott, both of Buena Vista, Va.

## Trade Marks.

- Peerless Rubber Mfg. Co., New York:  
 30,366. The word *Durham*, on the representation of a pulley and belt. For rubber belting and hose.  
 30,367. The word *Eclipse*, on the representation of a solar eclipse. For machinery packing.  
 30,368. The word *Hercules* over the figure of Hercules. For belting and packing.  
 30,369. The word *Eclipse*. For hose and packing.  
 30,370. The words *Rainbow Ribbon* on a scroll. For rubber hose.  
 30,371. The word *Knicker*. For hose and packing.  
 Also the following:  
 28,193. The New York Belting and Packing Co., Ltd., New York. The letters *AFMIC*. For rubber hose.  
 31,959. The Gutta Percha and Rubber Mfg. Co., New York. The word *Ajax*. For rubber-lined circular woven fabric fire hose.

ISSUED DECEMBER 8, 1908.

- 905,877. Tire surface or covering [of chain fabric]. P. C. Hewitt, New York city.  
 906,054. Anti-skidding tread for motor vehicle wheels. W. A. F. McCallum, Germantown, Pa.  
 906,158. Valve for pneumatic tires. H. K. Raymond, Akron, Ohio, assignor to The B. F. Goodrich Co.  
 906,159. Valve for pneumatic tires. *Same*.  
 906,167. Vehicle wheel rim. E. C. Shaw, Akron, Ohio, assignor to The B. F. Goodrich Co.  
 906,182. Bicycle tire and rim. S. S. Adams, Monroe county, Ky.  
 906,215. Apparatus for vulcanizing rubber. J. R. Gammeter, Akron, Ohio, assignor to The B. F. Goodrich Co.  
 906,256. Mold and mold equipment. T. J. Mell, Youngstown, Ohio, assignor to The Republic Rubber Co.  
 906,287. Hose nozzle. F. J. Radler, Jersey City, N. J.  
 906,297. Discharge nozzle or former of tube-making machines. V. Royle, Paterson, N. J.  
 906,304. Guard for tires. C. H. Saunders and A. B. Breitweg, Cleveland, Ohio.  
 906,306. Process for vulcanizing a rubber solution. H. Scherpe, assignor to Dr. Degen & Kuth, all of Duren, Germany.  
 906,404. Elastic tire wheel. A. D. Foucart, Muncy, Pa.  
 906,437. Tire protector. H. M. Lecce, Washington, D. C.  
 906,487. Pneumatic tire for wheels. C. S. Challiner and J. A. Challiner, Manchester, England.  
 906,489. Art of vulcanizing rubber. J. R. Gammeter, Akron, Ohio, assignor to The B. F. Goodrich Co.

## Trade Marks.

- Peerless Rubber Mfg. Co., New York:  
 30,373. The word *Anaconda*. For rubber hose.  
 30,375. The word *Reliance*. For rubber hose.  
 30,376. The words *Blue Ribbon*, on a ribbon bow. For rubber hose.  
 30,377. The word *Sterling*. For rubber hose.  
 30,378. The word *Liberty*. For rubber hose.  
 30,379. The representation of a crown. For rubber hose.  
 31,461. The word *Germane* in a diamond-shaped border. For machinery packing.  
 31,464. The word *Fortune*, surmounting two cornucopias. For belting and hose.  
 Also the following:  
 36,581. Hibbard, Spencer, Bartlett & Co., Chicago. The words *Our Very Best* across the initials *O. V. B.* For garden hose.

36,582. *Same*. The word *Rei-O-Noc* under the initials *H. S. B. & Co.* For garden hose.

37,924. Dr. Degen & Kuth, Duren, Germany. The word *Dermagummit*. For rubber preparations for covering the skin for hygienic purposes.

ISSUED DECEMBER 15, 1908.

- 906,556. Vulcanizer. F. C. Perkins, assignor of one-half to F. E. Finsterbach, both of Buffalo, N. Y.  
 906,569. Tire. [Consists of a rubber body having spaced air chambers formed therein, solid chambers extending from side to side of said tire body.] F. A. Seiberling, Akron, Ohio.  
 906,588. Machine for manufacturing pneumatic tires. A. E. Vincent, Noisy-le-Sec, France.  
 906,601. Puncture closer for pneumatic tires. D. Apstein, Bridgeport, Conn.  
 906,633. Filling for rubber tires and the like. [Consists of a gelatinous compound, a softening agent therefor, formaldehyde, and oxalic acid.] H. J. John, Washington, Pa., assignor of one-half to L. Raphael, Pittsburgh, Pa.  
 906,711. Syringe. [Vaginal.] H. M. Hill, Dallas, Texas, and C. O. Farrington, Chicago.  
 906,804. Tire for vehicle wheels. E. Kempshall, assignor to Kempshall Tyre Co. of Europe, Ltd., all of London, England.  
 906,805. Elastic wheel tire. C. King, Isleworth, England.  
 906,807. Rubber heel. A. M. Leighton, Avon, assignor to W. B. Arnold, North Abington, Mass.  
 906,825. Dress shield. W. H. Simmons, New York city.  
 906,834. Elastic tire for wheels. A. Umlauf and K. Böhm, Vienna, Austria.  
 906,933. Tire protector. W. H. Rice, Benton Harbor, Mich.  
 907,025. Hose nozzle. J. Ford, Philadelphia.  
 907,093. Pneumatic tire protector. F. L. Smith and C. C. Smith, Wahoo, Neb.

## Trade Marks.

- 38,172. A. G. Spalding & Bros., New York. Two segments of a circle, one colored blue and one red. For golf balls.  
 38,252. *Same*. Two segments of a circle. For golf balls.  
 38,211. Eberhard Faber. The word *Polita*. For a steel polisher of abrasive rubber.

ISSUED DECEMBER 22, 1908.

- 907,222. Overshoe. E. W. Chase, Kalamazoo, Mich.  
 907,273. Pneumatic tire plugging thimble. F. M. Neal, Bridgeport, Conn.  
 907,376. Powder blower. [For use in powdering shoes and the like.] F. B. La May, assignor to American Chemical Manufacturing and Mining Co., all of Rochester, N. Y.  
 907,453. Tire cover. F. C. Brock, assignor to the Vehicle Apron and Hood Co., all of Columbus, Ohio.  
 907,512. Means for automatic closing of punctures in pneumatic tires. J. Lindharth, Copenhagen, Denmark.  
 907,522. Portable vulcanizing apparatus. [May be carried with a motor car.] M. Schiele, Hanover, Germany, assignor to E. Berliner, Washington, D. C.  
 907,703. Overshoe retainer. A. E. Peterson, Admire, assignor of one-half to E. Locke, Topeka, Kan.

## Trade Marks.

- 38,464. Revere Rubber Co., Boston. The word *Relio*. For belting, hose, and other mechanical goods.  
 38,553. The Carr Mfg. Co., Kansas City, Mo. The representation of a ruby printed in red, surmounted by the word *Ruby*, and having beneath the words *Its a Gem*. Rubber rings and gaskets for jar caps.  
 38,554. *Same*. The representation of a peach surmounted by the word *Elberta*, and having beneath the words *Its a Peach*. Rubber rings and gaskets for jar caps.

ISSUED DECEMBER 29, 1908.

- 907,742. Floor covering. J. W. Cleland, Brooklyn, N. Y.  
 907,748. Chewing gum. [Containing resin and rubber in approximately the proportions of 3 parts resin to 1 part of rubber; "Pontianak rubber cleansed and rendered plastic," is mentioned particularly.] J. D. Darling, Philadelphia, Pa.  
 907,906. Vehicle wheel [with pneumatic tire]. H. M. Specht, Skaneateles, N. Y.  
 908,109. Rubber heel plate. G. H. Leef, Minneapolis, Minn.  
 908,172. Rotative rubbing device. H. C. Vial, Bourgoin, Isere, France.  
 908,181. Vulcanizing mold. J. K. Williams, assignor of one-half to The Williams Foundry and Machine Co., all of Akron, Ohio.  
 908,275. Tire. [Pneumatic; with tread formed of a recessed rib.] E. Kempshall, London, England.

## Trade Marks.

- 31,462. Peerless Rubber Mfg. Co., New York. The word *Rainbow*. For belting, hose, and packing.  
 31,463. *Same*. The word *Wizard*. For composition machinery packing containing asbestos.  
 36,788. Atlantic Rubber Co., Hyde Park, Mass. The words *Long Life*, on a circle enclosing the letter *A*. For rubber heels, bathing caps, etc.  
 38,112. The Goodyear Tire and Rubber Co., Akron, Ohio. The word *Pilgrim*. For pneumatic and solid rubber tires.

[NOTE.—Printed copies of specifications of United States patents may be obtained from THE INDIA RUBBER WORLD office at 10 cents each postpaid.]

## GREAT BRITAIN AND IRELAND

## PATENT SPECIFICATIONS PUBLISHED.

The number given is that assigned to the Patent at the filing of the Application, which in the case of those listed below was in 1907.

\*Denotes Patents for American Inventions.

- [ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, DECEMBER 2, 1908.]  
 18,076 (1907) Hese reel for use on board ship. G. C. Schofield, Southampton.  
 18,085 (1907). Elastic tire composed of rubber cover with spring bands inside. K. Gabriel, Vienna, Austria.  
 18,092 (1907). Device for mounting rubber tires while being filled with "Elastes" composition. F. L. Lloyd, Westminster.  
 18,175 (1907). Felloe and rim for pneumatic tires. H. Jones and W. E. Evans, Morriston.  
 18,239 (1907). Pneumatic tire with puncture-proof tread. W. Harrison, Carlisle.  
 18,241 (1907). Testing machine. [The "P. & B." dynamometer described in THE INDIA RUBBER WORLD, September 1, 1907, page 382]. A. D. Cillard, Paris.  
 \*18,252 (1907). Packing of metallic and fibrous strands around a core of elastic material. J. L. Sackett, Melrose, Mass.  
 18,281 (1907). Artificial leather. Waste leather is ground to a fine powder with which is incorporated rubber, petrolatum, zinc oxide, and other materials if desired; sulphur is added for vulcanization. H. Lewis, Melbourne, Australia.  
 18,437 (1907). Vulcanization of hard rubber coverings for metal or porcelain by means of an intermediate layer of rubber composition. M. Herschkowitsch, Jena, Germany.  
 18,535 (1907). Elastic tire of springs and rubber. R. Withey, South Bermondsey, and two others.  
 [ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, DECEMBER 9, 1908.]  
 18,526 (1907). Folding pneumatic boat. E. E. Geisenberger, Brussels, Belgium.  
 18,622 (1907). Apparatus for vulcanizing rubber boots and shoes. [The principle is illustrated in an earlier invention by the same patentee, described in THE INDIA RUBBER WORLD, April 1, 1908—page 219.] J. W. V. Mason, Manchester.  
 18,623 (1907). Apparatus for vulcanizing rubber boots and shoes. Same.  
 \*18,646 (1907). Pneumatic tire. C. G. Hawley and E. K. Baker, Chicago, Illinois.  
 \*18,653 (1907). Solid rubber tire. J. W. Rock, Akron, Ohio.  
 18,675 (1907). Elastic tire in which sections of hard rubber and soft rubber are arranged alternately. E. L. H. Crosby, London.  
 18,696 (1907). Tire filling composition made by the absorption of formaldehyde in gelatine solutions. S. W. Wilkinson, London.  
 18,697 (1907). Pneumatic tire. T. Cleathero and W. H. Carter, Grays, Essex.  
 18,770 (1907). Spring wheel with tire of tread blocks resting upon a pneumatic cushion. T. W. Hay, Slough, Buckinghamshire.  
 18,797 (1907). Manufacture of rubber covered rollers. A. T. Collier, St. Albans, and Reilloc Tyre Co., Westminster.  
 [ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, DECEMBER 16, 1908.]  
 19,125 (1907). Tire removing lever. R. L. Jones and F. Weeden, Carnarvon.  
 19,118 (1907). Detachable rim for pneumatic tires. F. S. Bereton and H. M. Rogers, Southampton.  
 \*19,131 (1907). Use of cellulose to fill a pneumatic tire when punctured to render it further serviceable. J. J. Hengler, Chicago, Ill.  
 19,168 (1907). Non-skid device for pneumatic tires. C. Henke, Witten-on-the-Ruhr, Germany.  
 19,189 (1907). Air tube for pneumatic tire formed in sections with closed ends, each being provided with a separate inflating valve. F. J. Moran, Birkenhead.  
 19,321 (1907). Pneumatic tire with puncture-proof lining between the air tube and cover. T. W. Baker, London.  
 \*19,419 (1907). Pneumatic tire with continuous tread formed with recessed circular stud-like projections. E. Kempshall, London.  
 19,476 (1907). Solid rubber tire. W. E. Carment, Richmond, Surrey.  
 19,511 (1907). Pneumatic tire. W. B. Hartridge, Seaford, Sussex.  
 [ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, DECEMBER 23, 1908.]  
 19,631 (1907). Rubber tire of arch section secured at its sides between metal rims. J. Slec, Newton-le-Willows.  
 19,654 (1907). Spring wheel composed of discs and having a pneumatic tire. J. Knight, Hollyhead.  
 19,681 (1907). Spring wheel mounted with elastic tire. L. P. Fillion, Levallois-Perret, France.  
 19,718 (1907). Pneumatic tire. J. Marcet y Marti, Tarrasa, Spain.  
 19,748 (1907). Solid rubber tire. R. T. Smith, Warrington.  
 19,787 (1907). Pneumatic tire with air chamber formed as a single tube or as a series of air bags. F. G. McKim, London.  
 19,788 (1907). Pneumatic tire formed of sections connected end to end and inflated with one valve. Same.  
 19,798 (1907). Device for locating punctures in tires, football bladders and the like. E. Daniell and S. A. Williams, London.  
 19,837 (1907). Pneumatic tire with detachable tread band. F. Hall, Hutton, Lanes.  
 19,887 (1907). Non-skidding chain device for tire treads. T. C. Martin, Cleveland, Ohio.  
 19,907 (1907). Electrically heated vulcanizer, particularly for tires. J. Hay, and two others, Johnstone, Renfrewshire.  
 19,968 (1907). Spring wheel with solid rubber tread tire resting upon a pneumatic cushion. W. A. Woodson, Gateshead-on-Tyne.  
 \*20,031 (1907). Solid rubber tire. C. Motz, Akron, Ohio.  
 [ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, DECEMBER 31, 1908.]  
 20,337 (1907). Puncture preventing band of canvas, leather, and metal,

placed between the cover and air tube of a vehicle tire. R. N. Bhabha, Saint Catherine's Park, Surrey.

\*20,436 (1907). Detachable side plates for rubber tires other than pneumatic. J. C. Lighthouse, Rochester, New York.

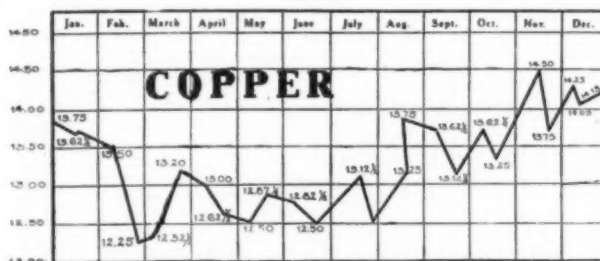
## THE FRENCH REPUBLIC.

## PATENTS ISSUED (with Dates of Application).

- 392,436 (July 7, 1908). F. J. M. Amondru. Pneumatic tire.  
 392,449 (July 18). J. Cairns. Pneumatic tire.  
 392,491 (July 20). A. Rainson. Armored pneumatic tire.  
 392,601 (July 24). U. Toulouse. Special tread for vehicle tires.  
 392,603 (July 24). E. André. Elastic tire.  
 392,749 (July 27). J. Vitin. Cover for pneumatic tire.  
 392,894 (Aug. 1). A. Rousseau. Pneumatic tire.  
 392,956 (Aug. 5). G. E. Payenneville. Elastic tire.  
 392,988 (Aug. 6). Carl Zeiss. Process for covering with an adhering layer of hard rubber, objects of metal, porcelain, glass, or other analogous material.  
 393,033 (Aug. 7). L'Huillier and Royé. Cover for pneumatic tire.  
 393,017 (Aug. 14, 1907). P. Foucher. Process and product for the production and repairing of envelopes and especially air chambers for pneumatic tires.  
 393,092 (July 18, 1908). G. Darroman. Demountable rim for pneumatic tire.  
 393,153 (Aug. 16, 1907). J. B. Berlier. Elastic tire.  
 393,159 (Aug. 8, 1908). L. Gaucheraud & Cie. Tire.  
 393,171 (Aug. 10). C. Hormann. Method of manufacturing pneumatic tires.  
 393,186 (Aug. 10). Rutgerswerke Aktiengesellschaft. Process for the preparation of products, half or wholly manufactured, of the rubber industry, with the aid of naphthalene and its derivatives.  
 393,290 (Aug. 12). N. Hornsten and J. Murat. Elastic tire.  
 393,294 (Sept. 19, 1907). A. Coudol and F. Larru. Pneumatic tire.  
 393,334 (Oct. 22). G. Plasse. Elastic tire.  
 393,346 (Aug. 6, 1908). W. Brameld. Pneumatic tire.  
 393,409 (Oct. 25, 1907). M. Pochet. Cover for pneumatic tire.  
 393,436 (Aug. 18, 1908). E. Kempshall. Improvement applied to wheel tires.  
 393,474 (Aug. 19). M. Byrne. Pneumatic cushion for shoes.  
 393,509 (Aug. 21). G. A. Bennett and J. A. Smith. Puncture-proof pneumatic tire.

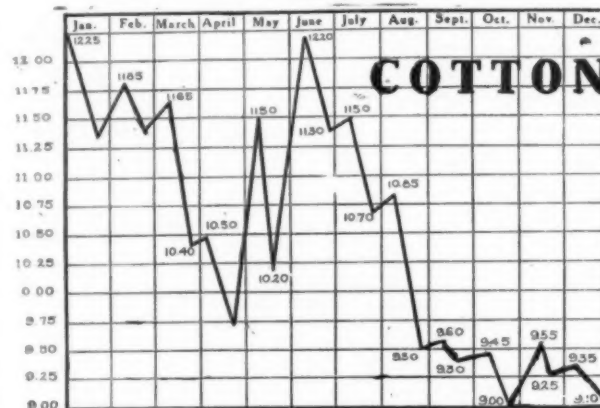
[NOTE.—Printed copies of specifications of French patents may be obtained from R. Bobet, Ingenieur-Conseil, 16 avenue de Villier, Paris, at 50 cents each, postpaid.]

## RUBBER MANUFACTURERS' MATERIALS.



RANGE OF COPPER PRICES, 1908.

[Electrolytic Copper, New York Metal Exchange. From the New York Times.]



RANGE OF COTTON PRICES, 1908.

[Middling Upland Cotton, New York Cotton Exchange. From the New York Times.]

## Tires at Madison Square Garden.

**W**HAT was designated as the Ninth Annual Automobile Show, under the auspices of The Association of Licensed Automobile Manufacturers—those who recognize the validity of the Selden patents—held at the Madison Square Garden, New York, January 16-23, undoubtedly was the most extensive, most attractive and interesting automobile exhibition yet held in America, and most representative of the industry. The attendance was larger than at any time in the past, with every evidence that the public not only is all the while becoming more interested in motoring, but that it is becoming more fully informed on the subject. This is not a place for discussing the details of progress in automobile construction, nor yet for mentioning even the individual exhibits in that line. This brief reference to automobiles, however, seems justified, in view of the importance to the rubber trade of the growth of the automobile industry—a growth which is possible only through the constant coöperation of the makers of tires and accessories.

Speaking generally, there were no new "types" of automobile tires shown. But there was evidence on every hand of improvement, comparing the exhibits with those of the season previous, in countless details which go to make for the perfect rubber equipment of the automobile. There is a steady advancement, for example, in the direction of standardization of rubber products in this line, and the accessories—rims, and the like—which are indispensable. At the same time was to be noted an absence of "freak" tires, despite the activity of the patent office during the year in granting tire patents.

THE INDIA RUBBER WORLD has devoted space hitherto, in reporting the automobile shows at the Garden, to "foreign tires," but this year the tire department was wholly American. It is true that names notable in the European tire trade were as prominent as usual, but the tires represented are no longer imported, but made in the United States.

The tire firms exhibiting, listed in alphabetical order, were as follows:

ALAN-GRIER RUBBER CO. ....Trenton, New Jersey.  
 Wrapped tread clincher automobile tires, guaranteed for 5,000 miles.

AMERICAN STEPNEY SPARE WHEEL CO. ....New York.  
 The Stepney spare wheel, mounted with an inflated tire, for use on automobiles; an English invention. Shown in America this year for the first time. Fitted for any standard clincher tire.

ATLAS RUBBER CO. ....Buffalo, N. Y.  
 A non-puncture inner case, in which metal disks are arranged in a cushion of rubber to prevent the injury of the air tube.

THE BATAVIA RUBBER CO. ....Batavia, N. Y.  
 Automobile tires to fit any standard clincher rim. Also, a special non-skidding tread, the "Security," applicable to new or old tires. Also, the Batavia outside tire sleeve.

CONSOLIDATED RUBBER TIRE CO. ....New York.  
 The Kelly-Springfield pneumatic automobile clincher tire, in round, flat, and Bailey treads. Also, the Kelly-Springfield Sectional tires (solid) for commercial vehicles, single and dual, in which latter form have been made the largest rubber tires yet used in America.

CONTINENTAL CAOUTCHOUC CO. ....New York.  
 The "Continental" tires now sold in America are all of domestic manufacture, with the exception of a few types for which molds have not yet been secured for the American factory. All the well-known types of this make were shown, with the "ready-flated" tire as a specialty.

DAYTON RUBBER MANUFACTURING CO. ....Dayton, Ohio.  
 Dayton airless tire, constructed with interior columnar sup-

ports, instead of air tubes. It is made with various forms of tread.

THE DIAMOND RUBBER CO. ....Akron, Ohio.  
 Diamond wrapped tread tires in many types, demountable rims for carrying inflated spare tires, "grip" tires (anti-skidding), and wire mesh and side wire tires for commercial vehicles.

DOW TIRE CO. ....New York.  
 Dow non-deflation tubes, for tires in American and metric sizes. These tubes are now supplied either at the Dow Company's factory or from the depots of The Fisk Rubber Co.

EMPIRE AUTO TIRE CO. ....Trenton, New Jersey.  
 Clincher tires with raised oval tread or round tread; "Empire" inner tubes; repair outfits.

FAULTLESS AUTO TUBE CO. ....New York.  
 A pneumatic tire with three or four inner tubes, inflated from a single valve, with the idea that in the case of the puncture of one or more tubes, the tire will still retain air.

FIRESTONE TIRE AND RUBBER CO. ....Akron, Ohio.  
 "Firestone" regular clincher; quick detachable clincher; non-skid treads; demountable rims, and special inner tubes.

THE FISK RUBBER CO. ....Chicopee Falls, Massachusetts.  
 "Fisk" bolted on and clincher tires, tire protectors, and pressure gages; inner tube repair outfits.

G & J TIRE CO. ....Indianapolis, Indiana.  
 Standard Clincher, Dunlap, and Quick Detachable, all in smooth or Bailey treads; improved butt end tubes for motor cycle tires.

THE B. F. GOODRICH CO. ....Akron, Ohio.  
 Pneumatic tires in all types, the round tread having preference; Bailey "Won't Slip" and studded treads; Goodrich quick detachable tires; tire tools; tire vulcanizers; inner tube patches. The Goodrich novelty this year is the "Palmer web," a fabric introduced to extend the durability of tires.

GOODYEAR TIRE AND RUBBER CO. ....Akron, Ohio.  
 Goodyear wrapped thread tires, with special "rivet" fabric; quick detachable tires on Goodyear Universal rims; non-skid detachable tires; special inner tubes; air bottles for charging tires.

THE HARTFORD RUBBER WORKS CO. ....Hartford, Connecticut.  
 Hartford clincher, Hartford Dunlop and Hartford quick detachable tires; Midgley treads; Standard Universal quick detachable rims; and an unusually wide range of accessories.

HEALY LEATHER TIRE CO. ....New York.  
 Healy demountable rim; Atlas reinforced non-skid leather tires; Healy method of repairing rubber tires.

LEATHER TIRE GOODS CO. ....Newton, Upper Falls, Massachusetts.  
 Woodworth leather treads, with metal studs; also, rubber and leather treads, repair boots, and inside shoe patches.

MICHELIN TIRE CO. ....Milltown, New Jersey.  
 The American-made Michelin tire; quick detachable rims; red inner tubes; compressed treads; anti-skids; demountable rims; pressure gages and compressed air bottles.

MORGAN & WRIGHT ....Detroit, Michigan.  
 Regular clincher and Universal Dunlop tires; quick detachable tires; regular, round, heavy flat, and Bailey treads; butt end motor cycle tires.

MOTZ CLINCHER TIRE AND RUBBER CO. ....Akron, Ohio.  
 Solid clincher tires; new non-skid cushion tires; single and twin solid tires for commercial vehicles.

PENNSYLVANIA RUBBER CO. ....Jeannette, Pa.  
 Regular wrapped tread clincher tires; non-skid tires, studded with case 1 hardened steel and set in a special process leather strip.

REPUBLIC RUBBER CO. ....Youngstown, Ohio.  
 Republic clincher tires; Staggard tread tires; flat tread, corrugated; repair kits and a varied line of accessories.



THE SEAMLESS RUBBER CO. ....New Haven, Connecticut.  
"Kantleek" inner tubes for tires; "blow out" patches and tubes;  
horn bulbs and other automobile accessories.

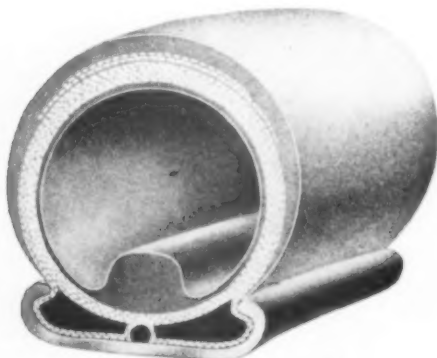
SWINEHART CLINCHER TIRE AND RUBBER CO. ....Akron, Ohio.  
Solid and cushion tires for automobiles and commercial  
vehicles; cellular tires; endless motor buggy tires.

TRAVER BLOW-OUT PATCH CO. ....New York.

A blow-out patch to go inside the shoe of an automobile tire.

TRENTON RUBBER MANUFACTURING CO. ....Trenton, New Jersey.  
Trenton wrapped tread auto tire casings; "Thermoid" linings  
for automobile brakes.

VOORHEES RUBBER MANUFACTURING CO. ....Jersey City, New Jersey.  
Non-puncturable cushion automobile tires; solid carriage tires;  
pneumatic tire repair work.



SWINEHART SINGLE TUBE TIRE.

[The Swinehart Clincher Tire and Rubber Co., Akron, Ohio.]



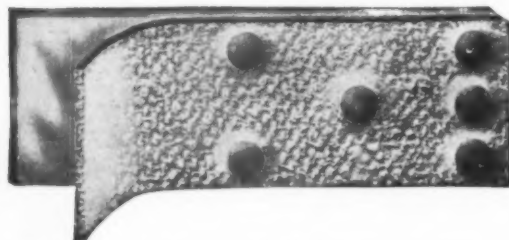
THE SECURITY TREAD.

[The Batavia Rubber Co., Batavia,  
New York.]



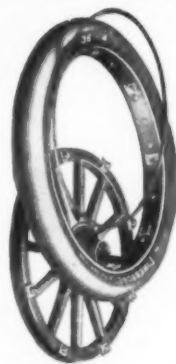
NON-PUNCTURE INNER CASE.

[Atlas Rubber Co., Buffalo, New  
York.]



"THERMOID" LINING FOR AUTOMOBILE BRAKES.

[Trenton Rubber Manufacturing Co., Trenton, New Jersey.]

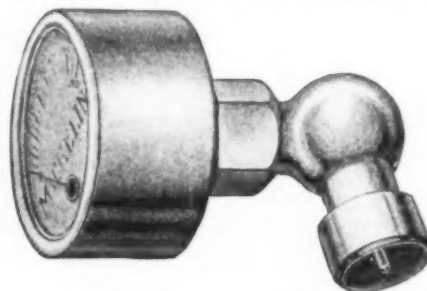


[The Firestone Demountable  
Rim.]



[This tire is lettered "Firestone  
Non-Skid."]

FIRESTONE TIRE AND RUBBER CO. EXHIBITS.



TIRE PRESSURE TESTER.

[Michelin Tire Co., Milltown, New Jersey.]



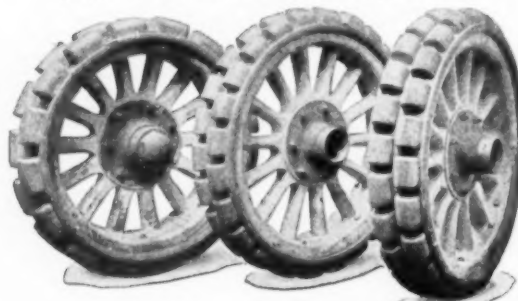
LONG DISTANCE ELECTRIC TIRE.

[Motz Clincher Tire and Rubber Co., Akron,  
Ohio.]



DAYTON AIRLESS TIRE.

[Dayton Rubber Manufacturing Co., Dayton, Ohio.]



KELLY-SPRINGFIELD SECTIONAL TRUCK TIRE.

[Consolidated Rubber Tire Co., New York.]

## Tires at the Last French Salon.

THE eleventh annual Salon de l'Automobile, du Cycle, et des Sports—the great French automobile show—was held this season in two departments, the first for a fortnight, closing December 13, having the usual characteristics of the yearly show, and the second, during the week which ended December 30, being devoted more particularly to commercial vehicles. The regular automobile show was the largest yet held in Paris, and perhaps more thoroughly representative of progress in Europe in automobile construction. The prominence of the bicycle attested the continued popularity of this vehicle in France, and an increased number of motor cycles was shown. The most distinct novelty perhaps was in the line of aerostation, but to note flying machines would carry this report too far from its subject—rubber tires.

When mentioned without qualification, a rubber tire in France is simply a "pneumatic," or a pneu—the same tire that has become standard for automobile use everywhere. This type of tire never having been patented in France, the whole rubber industry has been free to work at its improvement, so that a high degree of excellence has been attained. The bicycle tire having been developed into a motor car tire, and up to a stage where further improvement seemed impossible, the inventors turned their attention in two new directions: (1) Special treads for special uses, and especially for non-skidding or puncture prevention, and (2) easily removable rims, which it is now the fashion to replace, in an emergency, with spare rims carrying inflated tires. Under these two heads were very many exhibits at the Salon, though really little new in principle, in view of the development made along these lines during two years past.

Michelin & Cie., of Clermont-Ferrand, in addition to "Michelin" pneumatics for apparently every imaginable requirement, had in their exhibition space many specialties which they control—removable rims, valves, compressed air bottles, pressure indicators, repair sleeves, tire applying tools and the like. It is stated that 1,126 cars on exhibition were equipped with Michelin tires, while the nearest competitor had but 656 wheels to his credit, and a second competitor 274 wheels.

Michelin showed wheels on which were mounted two and three pneumatic tires—"twin" and "triple" tires—intended particularly for commercial vehicles. The idea is to lessen the injury to mechanism from excessive vibration set up with steel or solid rubber tires, where fast running is necessary.

Société Industrielle des Téléphones, Société anonyme, of Paris, with 18,000,000 francs capital, have a wide range of manufactures in rubber, including an extensive pneumatic

tire department. Their exhibit included "L'Electric" tires of various types and of many sizes, including special treads, repair accessories, valves, lugs, etc.; also rubber mats for automobiles, waterproof covers, and insulated wires.

Etablissements Hutchinson, Compagnie Nationale du Caoutchouc Souple, of Paris, now capitalized at 6,000,000 francs, exhibited "Hutchinson" pneumatics, standard and special, with many accessories.

Société Lyonnaise de Caoutchouc, of Paris, with works at Lyon-Villeurbanne, exhibited pneumatics for automobiles, motor cycles, and cycles, with round and flat treads, smooth or corrugated; detachable treads, repair accessories, and so on. The company are capitalized at 1,000,000 francs, and manufacture hard and soft rubber goods generally.

Other French exhibitors of tires were Falconnet-Perodeaud, of Choisy-le-Roi; Bergouman & Cie., of Clermont-Ferrand, with "le Gaulois" tire; the newer Société Parisienne du Caoutchouc Industriel, the "Lutetic" tire, and Société Générale de Pneumatiques, of Paris, the "Mercure," with special wire protected tread. L. François, A. Grelou & Cie., of Paris, exhibited "Sidéral" pneumatics. L. Edeline, of Puteaux, exhibited "Gallus" pneumatics and automobile accessories. The Manufacture de Caoutchouc A. Soly, of Lyon, exhibited the "Soly" pneumatic.

A. Wolber, of Vailly-sur-Aisne, exhibited a novelty described as a "double tube demontable," a pneumatic for bicycles, which is held on a simple wooden rim simply by the inflation. Wolber mentions the growth of his bicycle tire production from 48,850 tires ten years ago to 351,903 for the year just closed.

The India Rubber, Gutta Percha and Telegraph Works Co., Limited, who maintain works in France at Persan (Seine-et-Oise), exhibited their "Persan" tires for motor cars and bicycles. The affiliated company, The Palmer Tire Co., Limited, of London, were represented by the "Palmer Cord" tire.

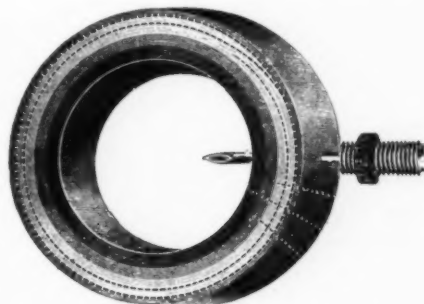
The "Dunlop" and "Continental" tires, of course, were shown also, though of foreign manufacture. The latter company, with one of the largest displays at the show, emphasized the victory of their tires at the Grand Prix of 1908.

A novelty in the Paris show—though its basic principle was employed years ago in tire making in the United States—was exhibited by a new French company, "La Sans Valve." It is a "hose pipe" cycle tire, the inner part of which is a layer of unvulcanized rubber. Air is admitted by puncturing the tire, with the idea that when the inflator is withdrawn the puncture will heal at once, thus retaining the air.

America was represented particularly by "le pneu Goodrich," made, of course, by The B. F. Goodrich Co., of Akron,



WOLBER DOUBLE TUBE CYCLE TIRE.



SECTION OF "SANS VALVE" TIRE.

Ohio, and exhibited through their house in Paris, 2 rue Brunel. Their space was No. 29 in the balcony of the Salon d'honneur, near the Dunlop and Continental exhibits.

Not far away were the Russian-American India-Rubber Co., of St. Petersburg, with pneumatic tires and fabrics for dirigible balloons. It will be seen, then, that French makers did not have the exhibition all to themselves, however much they may monopolize the home trade when selling tire covers.

The Kempshall Tyre Co. of Europe, Limited, of London, showed a new removable rim and the special tread for pneumatics that has been illustrated in THE INDIA RUBBER WORLD.

Eleazer Kempshall, the inventor of this tire, is an American, as was John F. Palmer, whose invention was the basis of the present "Palmer Cord" tire. The founder of the Hutchinson house was an American, and an original element from the United States is suggested in the name of the Russian-American company. The only out-and-out American exhibit at the Salon, however, except a few makers of automobiles—was the tire display of Goodrich, though the European concessionaire of The American Wood Rim Co. occupied space.

The Samson leather tires were exhibited, the Stepney spare wheel, and practically everything in the world of tires or appertaining thereto. The interest which the whole attracted, as well as that devoted to the cars on exhibition, suggests that the French public, instead of becoming tired of automobile shows, is becoming more addicted to the show habit.

#### THE RUBBER TRADE IN SAN FRANCISCO.

BY A RESIDENT CORRESPONDENT.

WITH the first of the new year came a better feeling for the future business interests on the Pacific coast. Financial conditions, while not yet entirely as good as before the fire, are rapidly approaching that condition, and every merchant remarks how much easier money is to get now than it has been for over two years. Lately there have been heavy rains throughout California, and although they have caused disastrous floods through portions of the Sacramento valley, yet the great good which they have done to the farming portions of the rest of the state, more than compensates for the loss. The rains offer positive assurance that the coming year will be a prosperous one. In San Francisco there is no longer heard any complaint, and the rubber dealers are preparing for an active year. Despite the large number of rubber houses in the city, all of them have succeeded in pulling through the quiet times, and the fact that they are now ordering extensive stocks is a fair indication that they are in a satisfactory position.

Mr. R. H. Pease, president of the Goodyear Rubber Co., reports that since the first of the year business has been picking up, and that they are now running ahead of January of last year. Last year's business in the line of boots and shoes was naturally very dull, because it was an unusually dry fall and many of the retailers were forced to carry large stocks over from their purchases of 1907, which, of course, brought the sales down lower than they would have been if there had been better fall rains. The recent big rains are a fine thing, and Mr. Pease feels that the stocks in the hands of customers will be greatly reduced. Mr. Pease, accompanied by his son, has gone to the company's Portland house, and during the latter part of February he will visit New York.

The latest report from the Bowers Rubber Works shows that the firm is doing an active business. Their factory at Black Diamond seemed for a while to be in danger from the rising waters of the floods from the Sacramento river, but that danger was soon past. This firm has landed a big contract for furnishing rubber dredging sleeves for the Panama canal—the first contract that has been awarded to any of the Pacific coast rubber

houses for supplies by the Isthmian canal commissioners. The factory will have to supply so many every month, and with what work they already have they are assured of a busy season.

Mr. J. L. Phillips, general manager of the fire department supplies handled by the Gorham Rubber Co., is in San Francisco looking after the department here. Mr. Phillips makes his home in Seattle, Washington, and reports that business of all kinds has shown great improvement there in the past few weeks. Quite a number of the big lumber mills have burned lately and the owners have awakened more fully to the importance of putting in efficient fire departments. They have heretofore overlooked their fire protection to a large extent, and the stir which the fires have created has given the fire protection business a big boost.

Mr. Phillips states that in Seattle great preparations are being made for the Alaska Yukon Pacific Exposition, to open some time in May or June of this year. Mr. Phillips lately visited the Los Angeles branch of the Gorham Rubber Co., as also did Mr. William J. Gorham, president of the company.

Mr. C. H. Brown, with the Gutta Percha and Rubber Manufacturing Co., states that he finds an active call for larger belts than were ordered last year, and some very large orders have been placed, indicating that millmen are anticipating a bigger year.

Mr. Ralph, one of the proprietors of the Phoenix Rubber Co., states that the financial end of business is much better in tone. Money is easier and business is getting back to a firm, steady basis. This firm has been doing particularly well on the output from the Republic Rubber Co. (Youngstown, Ohio), especially in their Staggard tread tires.

J. C. Martin & Co., coast agents for the Anchor Packing Co., are now doing a nice business in their new quarters, at No. 562 Howard street.

Mr. C. E. Mathewson, Pacific coast manager for The Diamond Rubber Co. (Akron, Ohio), has returned from Seattle, Washington, where he established a new branch for the company. Donald McKay, who has been looking after the interests of The Diamond Rubber Co. in the north for many years, has been placed in charge as manager of the Seattle branch. Mr. Mathewson has since gone to visit the factory at Akron, and to take in the New York automobile show. Business at the Los Angeles branch of the Diamond company has increased materially of late, and they have found it necessary to increase their traveling forces.

Mr. F. C. Anderson, representing the Electric Hose and Rubber Co., is now located at No. 420 Mission street.

Activity down on the water front, according to Mr. Sprague, who devotes most of his attention to demands for rubber supplies from that source, is increasing. Shipping is now quite active, and the teamsters are witnesses to the fact that traffic has about doubled during the last two weeks. Everything is moving along better except the lumber business, which is still rather inactive.

The Pacific Coast Rubber Co. find that there is an increased demand for goods in their lines, and they believe that the next month or two will see a marked improvement in business.

#### TO GO OVER NIAGARA IN RUBBER.

THE New York Sun printed this dispatch from Niagara Falls, Ontario, under the date December 21:

"Another man is planning to try the trip over the Horseshoe Falls, in a vehicle different from anything that has been tried before. It is an immense rubber ball which is now being constructed by a rubber company in the United States. The voyager is Robert Leach, of Chippewa, and he plans to make the perilous trip next June. There will be two balls, one within the other. The outer ball will be 13 feet in diameter, and the inner one, in which Leach will hazard his life, 11 feet in diameter. The inner ball will be held in position by four spiral steel springs and sufficient oxygen will be pumped into it to give the man a bare chance for life if anything goes wrong."



## Trade Conditions in Rubber Footwear.

THE United States consul general at Smyrna devotes a recent official report to the rubber shoe trade in Turkey, with the conclusion that the American share in this trade might be augmented. He estimates the present imports of rubber footwear at the port of Smyrna at \$97,000 a year, the United States contributing 40 per cent.; Austria, 35 per cent.; Russia, 15 per cent., and England and Germany each 5 per cent. He writes that the rubber shoe trade in Turkey "should not be treated as an emergency outlet in case of dull trade at home. Now is the time to secure this trade and hold it. While the trade may be small in the beginning, yet there are many millions of people living in Asia Minor who are rapidly realizing the benefits of all articles of modern dress, and during four months of the climate rubber shoes are indispensable articles." The chief competitor with the American rubber shoe, says the consul general, "will be the Russian shoe, which is of good quality and brings a higher price than any other sold at present, but it is not considered stylish, and its heavy shape retards its sale."

The United States during the fiscal year 1907-08 exported direct to Turkey rubber boots and shoes as follows:

	Pairs.	Value.
Turkey in Europe.....	151,131	\$74,731
Turkey in Asia.....	18,046	10,034
Total .....	170,077	\$84,765

To go back ten years, the exports for the fiscal period 1897-98 were:

	Pairs.	Value.
Turkey in Europe.....	588	\$325
Turkey in Asia.....	150	80
Total .....	738	\$405

Rubber goods other than footwear exported direct to Turkey increased in value from \$191 in 1897-98 to \$8,364 in the year ending June 30, 1908.

### RUBBER SHOES IN THE WHOLESALE TRADE.

At the eleventh annual meeting of the Western Association of Shoe Wholesalers (Chicago, December 18), the retiring president, Mr. E. F. Carpenter, in his address, said in part:

"Heretofore the work of the association has been largely in connection with the rubber business, but the past year has been different in this particular.

"At the outset of the year, 1908, we had quite a number of complaints of irregularities, in all about 45. They were promptly taken up, sifted out, and in nearly every instance we found that the retailer was attempting to work one salesman against another to get a concession in price. A good many of these cases were settled by the secretary going direct to the dealer, in some cases accompanied by the salesman connected with the complaint. Each one of these instances was amicably settled.

"It is significant that so few instances of irregularities have occurred this year as compared with other years—here we are commencing to reap the benefit of our better acquaintance with each other and the work of the association—especially so in consideration of the fact of the reduced sale in rubbers, particularly in the early part of the season, which, as you all know, was attributable to two causes: First, the mild winter of last year which reduced the sales and left comparatively large stocks in the hands of the dealers; second, no inducement in price was offered for early orders.

"If we get the good, old-fashioned hard winter this year that is predicted, it will clean up stocks in good shape

And if the rubber manufacturers decide to give an inducement in price for early orders next season, we will have a 'killing' in the rubber business next year. Let's all make up our minds to retain our regular profit on the merchandise and make the outcome of our year's business show a handsome gain.

"Our relations with the rubber manufacturers to-day are on a different basis from ever before. The companies evince a desire to do everything in their power to make our dealings with them agreeable; and they give our suggestions and recommendations a consideration never before accorded us as individuals. This I firmly believe is almost wholly due to the fact that the wholesalers have formed themselves into associations for their own protection and benefit."

The officers elected for the current year were: Charles L. Swarts, of St. Louis, president; I. H. Sawyer, of St. Louis, vice-president; S. W. Campbell, Continental National Bank building, Chicago, secretary (re-elected); and an executive committee of 12. The new president is connected with the Wertheimer-Swartz Shoe Co., of St. Louis.

The attendance at the annual banquet, on the same date, included a goodly percentage of rubber shoe jobbers and of representatives of rubber manufacturing firms.

### HIGHER RUBBER FOOTWEAR PRICES.

NEW price lists and new discounts were issued by the rubber footwear manufacturers, to take effect from January 1, 1909, the changes involved being the first since the beginning of 1907. Such changes as have been made in gross prices are in the nature of advances, applying to items here and there throughout the lists, and not following, so far as is apparent, any particular rule. Thus the standard short boot remains at the same price as before; men's Storm King boots are 20 cents higher, and two dozen or more other items in boots are higher by 5 to 20 cents. Most classes of shoes show an advance in some of the items, but generally this applies to men's goods rather than to women's and children's sizes. The advance ranges from 2 cents per pair on sandals to 25 cents on misses' "Empress" goods.

The discounts to retailers this year differ from last year's in that an item of 3 per cent. is left off in each case. That is, first quality goods carry a single discount of 25 per cent., instead of 25@3, as formerly. The rates now are:

First quality (except Woonsocket and Meyer).....	25%
Woonsocket and Meyer brands .....	25@ 5%
Second quality (except Rhode Island and Jersey).....	25@10%
Rhode Island and Jersey.....	25@10@ 5%

There will be a special and extra discount of 5 per cent., however, in effect until May 1, 1909, to encourage the early placing of orders, and this is to be added to the discounts in the above table in considering present prices.

On the whole, rubber shoe prices are higher, but it would be practically impossible to say how much so. Last year, a man's short boot, listed at \$4.20, with 25@3 per cent. off, cost the retailer \$3.06. This year, at the same list, with the regular discount and the extra 5 per cent., the cost is \$2.99; after May 1 it will be \$3.15. Men's plain sandals, listed last year at 92 cents, cost the retailer 67. This year, listed at 95, they will cost 68 cents until May 1 and 71 cents thereafter.

The most expensive item of rubber "boots and shoes" in the lists just issued for the current year is "men's body boots," selling price of which is \$12.50. The next highest item is the "Jumbo" boot, at \$10. The scale then descends to \$7.45, the price

of "men's duck firemen's sporting boots." By the way, how a fireman's sporting boot differs from a sportsman's fire boot is not indicated. These items appear in the "Unlisted List" of the United States Rubber Co. When more usual prices are reached, the highest is \$7, the figure for men's hip Khaki boots, and then \$6.85 for men's hip duck boots, supplied by most of the factories of the United States Rubber Co. The bottom price in the regular lists is 44 cents, the price of some grades of children's overshoes. The lowest net price of any 44 cent article is 28 cents, but the net price lists of the "Empire" and "Colonial" brands include items so low as 25 cents, for children's croquets, spring heel.

#### RUBBER SHOE PRICES IN CANADA.

IN relation to a proposed change in dealing with the announcement of prices of rubber boots and shoes for the Canadian trade, a prominent firm of manufacturers in the Dominion write to THE INDIA RUBBER WORLD:

"For some time the trade generally in Canada have asked that

rubbers be sold at net prices, similar to the prevailing custom in the leather shoe business, instead of gross with retailer's discount.

"While not of necessity so intended, the list prices are pretty generally regarded as the retail prices to consumers, but in certain sections, where freights and business expenses rule high, it is contended that the retailer's discounts from gross list prices do not afford an adequate retailer' profit. It is thus difficult to adjust a set of gross list prices satisfactory to all sections. Therefore, with the desire of meeting the wishes of the trade, we are considering the advisability of issuing our forthcoming illustrated catalogues without prices, so as to give the new method a practical trial. At the same time we purpose issuing a separate folder containing the net prices.

"These net prices would represent the equivalent of gross list prices with the initial trade discounts deducted therefrom, and subject only to the wholesaler's discounts and early order discount if such is arranged. Our current shoe year extends to the end of February. New catalogues, therefore, will not be issued until March 1."

## Rubber in Balloon Construction.

THE amount of rubber which has gone already into the construction of balloon fabric must be very considerable, though no statistics on this point are yet available. Interest in aeronautics has of late become very widespread, being stimulated by the activity of most of the European governments, as also that of the United States, in military aërostation, though perhaps by this time the actual demand for balloon fabric has been greater from the various aëro clubs organized for purposes of sport.

THE INDIA RUBBER WORLD of October 1 last, in an article devoted to this subject, mentioned a paper by Mr. Octave Chanute, published in 1891, in which he expressed himself as able to record little more advance in aerial navigation than the evidence that in popular opinion it was "no longer regarded as wholly impracticable and visionary." There lies before the writer a list of no fewer than 18 papers on aerial navigation published by Mr. Chanute since the date referred to, the whole recording a remarkable degree of advance in this field. This list of papers, by the way, occurs in a bibliography of several hundred titles, by authors, for the most part, of distinction, in every civilized country. It may be mentioned that there are to-day upwards of 20 periodicals devoted exclusively to aeronautics in the United States, England, France, Germany, Austria, Italy and Europe; three international scientific societies devoted to the subject, and about 50 other societies, either for the scientific study of aeronautics or for the promotion of sport in this field, of which no fewer than 14 exist in the United States, 13 in Germany, and 11 in France.

These details are given merely to indicate the growing interest in aeronautics and the extent to which the new science and sport have extended. In connection with a former article in this paper appeared a view of 31 large balloons being inflated for a race promoted by a single aëro club in England. Seven European countries maintain "balloon troops" engaged exclusively in aeronautical work, their number aggregating recently 157 officers and 4,562 men, on a peace basis, while the existing schedules provide for the larger balloon troops to be employed in case of war.

The interest of all this to the rubber trade is that so many of the balloons being manufactured are enveloped in rubberized fabric, while rubber enters also to a certain extent in the manufacture of the various types of flying machines. The quality of these fabrics has been discussed hitherto in these pages. It may be of interest here to give some further details relating to balloon envelopes, from a paper on "The Present Status of Military Aeronautics," presented by Major George O. Squier, PH. D., of the United States army signal corps at the New York meeting, in

December last, of the American Society of Mechanical Engineers. Describing the "Patrie," a military dirigible balloon made in France, Major Squier says that the gas bag consists of four layers arranged as follows and having the weight in ounces per square yard indicated by these figures:

Outer layer of cotton cloth covered with lead chromate.....	2.50
Layer of vulcanized rubber.....	2.50
Layer of cotton cloth .....	2.50
Inner layer of vulcanized rubber.....	2.21
Total weight .....	9.71

A strip of this cloth one foot wide tears at a tension of about 934 pounds. A pressure of about 1 inch of water can be maintained in the gas bag without danger. The lead chromate on the outside is to prevent the entrance of the actinic rays of the sun, which would cause the rubber to deteriorate. The heavy layer of rubber is to prevent the leaking of the gas. The inner layer of rubber is merely to prevent deterioration of the cloth by impurities in the gas. This material has the warp of the two layers of cotton cloth running the same direction and is called straight thread.

The details of the gas bags of another French military dirigible balloon, the "Republique," are given as follows, the figures relating to weight in ounces per square yard:

Outer yellow cotton layer.....	3.25
Layer of vulcanized rubber.....	3.25
Layer of cotton cloth.....	3.25
Inner layer of rubber.....	0.73
Total weight .....	10.48

Regarding the airship "Ville de Paris," Major Squier states that the gas bag is made up of a series of strips perpendicular to a meridian line. These strips run around the bag, their ends meeting on the under meridian. This is known as the "brachistode" method of cutting out the material, and has the advantage of bringing the seams parallel to the line of greatest tension. They are therefore more likely to remain tight and not allow the escape of gas. The disadvantage lies in the fact that there is a loss of 33⅓ per cent. of material in cutting. The material has approximately the same tensile strength and weight as that used in the "Patrie." It differs from the other in one important feature—it is diagonal thread; that is, the warp of the outer layer of cotton cloth makes an angle of 45 degrees with the warp of the inner layer of cotton cloth. The result is to localize a rip or tear in the material. A tear in the straight thread material will continue along the warp, or the weave, until it reaches a seam.

In some of the German airships the envelopes are made of rub-

ber cloth similar to that already referred to—diagonal thread—but without an inner layer of rubber, since the makers do not fear damage from impurities in the hydrogen gas.

The balloon fabric used on the airships and balloons mentioned thus far is of German manufacture. The subject of military aeronautics has been taken up in earnest by the signal corps of the United States army, with results of real interest, not the least important of which is the success achieved in the manufacture of balloon fabric in this country. The fabric used for the dirigible balloon accepted by the government from Captain Thomas S. Baldwin, of New York, is made of two layers of Japanese silk, with a layer of vulcanized rubber between, and this was supplied by a leading American rubber manufacturer. The gas bag used by Captain Baldwin is 96 feet long, with a maximum diameter of 19 feet 6 inches, and a volume of 20,000 cubic feet.

Some details of the size of the more notable air ships may give an idea of the amount of fabric required for their construction:

Patrie .....	cubic feet	111,250
Republique .....		131,000
Ville de Paris .....		112,847
English Military Dirigible No. 1 .....		84,768
Gross (German) .....		63,576
Parseval .....		113,000
Zeppelin (16 gas bags) .....		460,000

The surface measurement of these is not given, with the exception of the "Ville de Paris," the envelope of which has a surface of 19,676 square feet.

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The following is an extract from a letter to THE INDIA RUBBER WORLD by Captain Thomas S. Baldwin:

"I have read carefully an article in your October issue on 'Aeronautics and the Rubber Industry.' It was very good, but you did not bring out the strong points of the vulcanized proof material. As a matter of fact the rubber material is lighter in weight than the varnished material, and also it will stand any degree of cold. Many such things as that is what makes it the coming material for balloon purposes.

"I am very glad to see your paper take the interest in it that you have, as it will all do its help toward the ultimate using of rubber fabric for balloon purposes.

"I have seen the aeronauts of the middle west, and it is fearful the 'knock' they are putting up against the rubber fabric, principally on account of the price, but we will gradually overcome this objection.

"In 1891 and 1892 THE INDIA RUBBER WORLD assisted me very materially in getting the data for this very same material, and I have always felt very kindly toward it."

\* \* \*

TO THE EDITOR OF THE INDIA RUBBER WORLD: In reference to rubberized balloon material, we are using the French, German and American made materials. This material is not new, by any means; it has been in existence for the past ten years, and its great cost is its drawback. There is no great advantage of this material when it is taken into consideration that the ordinary unvulcanized rubber and varnished materials mixed stand five or six years' wear, and the balloon is usually ripped up before being decayed. It is true that the rubberized materials are a little stronger on account of their double and triple thickness material, but the weight added thereon robs them of their ascensional growth.

New York, January 5, 1909.

A. LEO STEVENS.  
[Balloon Constructor.]

DR. JOHN C. WILLIS, director of the royal botanic gardens of Ceylon, in a note to the *Ceylon Observer*, says that he has always been against the tapping of cultivated *Hevea* before the fifth or sixth year, and that he considers all rubber trees under ten years young trees.

## HERR PRINZHORN ON PLANTATION RUBBER.

THE rubber planting regions of Malaya and Ceylon are being visited at present by Herr Adolf Prinzhorn, managing director of the Continental Caoutchouc- und Guttapercha Compagnie, of Hanover, Germany, who has expressed a great interest in the progress of rubber culture, though it does not appear that he has invested any capital in it, at least in the Far East. In an interview with Herr Prinzhorn the *Ceylon Observer* reports him, in part, as follows:

"Pará rubber has gone up 60 per cent. since March," said Mr Prinzhorn.

"What are the causes?"

"It would be better if you asked me what it declined previously to then. It was, to a great extent, due to the American crisis. The American factories were working only half-time in many cases, whereas they are now working full time. The price was 2s. 9d. then—much too low—and it is now about 5s., which is much too high. I should think a fair normal figure would be 3s. 6d. to 4s. a pound. While it is as high as at present there is not likely to be any increase in the uses of rubber."

"What will bring the price down?"

"An increased output of plantation rubber, every ounce of which that is sent over to Hanover, sells. Yes, I think the German manufacturers like plantation rubber. We can use it for most of the articles that we manufacture, though not all. I think that the best Ceylon rubber is equal to fine Pará. Ceylon rubber is liked generally."

"In what form is it preferred?"

"Well, that is difficult to say, crepe or dry blocks."

"Will the present good demand for rubber be maintained?"

"Yes, I think so; there is every reason for it doing so. It is partly speculation that causes the fluctuation in prices, so far as I can see. If the output becomes largely increased and the price comes down, of course, many new uses for rubber will be practicable and the many substitutes for rubber which are on the market will disappear."

"Where do you buy your rubber, Mr. Prinzhorn?"

"I buy in the cheapest market. When I can get it cheaper in New York, I buy it there; if in London, then in London I buy. We use something like 200 tons of rubber a month in our factory."

In an editorial note *The Times of Ceylon* remarks upon the use of 200 tons of rubber per month by Mr. Prinzhorn's company, whereas the average monthly export of plantation rubber from Ceylon has not yet exceeded 28½ tons. *The Times* says: "The fact that one manufacturing firm alone consumes about seven times as much as this island produces will go to show what little influence on prices our rubber can have at present. Even for 1910, Mr. H. K. Rutherford's estimate of the output of *Hevea* rubber of the whole of Asia is 3,520 tons, as compared with 2,400 tons used by this one company of manufacturers."

Mr. Prinzhorn mentioned in an interview for the *Times* a marked improvement in plantation rubber now as compared with a few years ago. He had recently seen samples of plantation rubber equal to the best Pará. It was being used in his factory for nearly all purposes for which Pará is employed.

## A GOVERNMENT RUBBER PLANTATION.

Bids were invited by the conservator of forests for Eastern Bengal and Assam (India) up to January 15 for produce of the government rubber plantations of Charduar and Kulsi for the fiscal year 1908-09, estimated at 12,000 pounds for Charduar and 4,000 pounds for Kulsi. At Charduar exists one of the earliest rubber plantations in the world, systematically laid out, and no other was ever written about so extensively. It was purely a government undertaking for experimental purposes, and is still practically so. The rubber species is *Ficus elastica*, and the enterprise has no connection with the introduction of *Hevea* into Ceylon and Malaya.



## A Successful "Castilloa" Rubber Planter.

THE subject of this sketch, Mr. James C. Harvey, whose portrait is here reproduced, was born at Hamilton, Ont., Canada, of Scotch and English parentage, and received his education in the public schools of the Dominion. He early evinced a great desire to see tropical countries, which led to his accepting employment as purser's clerk in an American steamship line, trading between New York and West Indian and Central American ports, as a means to this end. Soon afterward he succeeded in joining one of the large British mercantile fleets sailing from England, and Mr. Harvey became an articled apprentice in the Castle line, owned by Sir Donald Currie & Co., of Liverpool. This service extended over a period of nearly six years, during which Mr. Harvey visited South Africa, India, Ceylon and Australia, making also several sojournings of some length in planting districts in the Indies.

He took advantage of the opportunities thus afforded to study tropical agriculture under many varying conditions and to advance a deep inborn taste for botanical and horticultural pursuits. He subsequently voyaged to the east and west coasts of South America, finally arriving in California, where he settled, married, and became an American citizen. He engaged for some time in manufacturing, commercial, and horticultural work; but the ruling passion of his life was not to be quenched, and about ten years ago he went to Mexico, and spent the greater part of a year in examining the planting regions in the states of Veracruz and Oaxaca, with a view to reëntering the field of tropical agriculture. The result of this tour was that, in company with a few associates, he acquired about a thousand acres of land, situated in what is known as the Trinidad valley district, in Veracruz, to which he gave the name of "La Buena Ventura," and about one-half of which he has since developed, and devoted principally to the cultivation of rubber (*Castilloa elastica*) and cacao (*Theobroma cacao*). In the possession of his picturesque palm thatched house, surrounded by a rare profusion of exotic, economic, and ornamental flora from all parts of the tropics, Mr. Harvey feels that the gods have granted him in generous measure the fulfilment of his earliest and fondest ambitions.

A man of thought and of action, with a keen sense of humor, an enthusiastic botanist and collector of *lepidoptera*, a cosmopolitan of the broadest sympathies and interests, and a *raconteur* of no mean ability, Mr. Harvey combines in his many-sided personality all the qualities that go to the making of a delightful companion and staunch friend—on the strength of which, as well as by reason of his recognized scientific and practical knowledge of tropical agriculture, he justly enjoys a wide popularity amongst the planters of the isthmus of Tehuantepec and others with whom his vocation brings him in touch. Himself an ardent lover of the soil and an indefatigable worker, imbued with the Carlylean gospel of duty, Mr. Harvey has the happy faculty of inspiring all who came into contact with him with a sense of the dignity of labor and the importance of honest effort.

It should not be overlooked that to Mr. Harvey belongs the credit of introducing many useful plants hitherto unknown to Mexico, such as the East Indian jack fruit, cinnamon, African

akee fruit, Surinam cherries, grafted Indian mangos, cardamons, economic bamboos; Indian, Malayan and South American palms; fiber producing plants, such as *Sansiviera Zeylanica*, *S. Guinensis*, and the famous Manila hemp plant (*Musa textilis*); also many newer varieties of pineapples, bananas, oranges, etc., besides an infinity of flowering trees, shrubs and creepers, the cultivation of all of which, with very few exceptions, has proved entirely successful.

Mr. Harvey has long been a correspondent of the principal botanical stations in the tropics, including the royal botanic gardens at Calcutta, Peradeniya, Singapore, Natal, Mauritius, Seychelles, and the Gold Coast, as well as the famous institution at Kew, London, this correspondence relating to the results of experience and new ideas in planting methods, and the interchange of seeds and plants adapted to the respective climatic conditions.

It is what Mr. Harvey has done in the culture of the *Castilloa* rubber, however, that will most appeal to the readers of this sketch. He has studied the tree under all conditions as no one else has; has examined soils where the tree flourished and where it did not, made careful records of rainfall and temperature, and noted the effect of all, not only upon the growth of the tree, but upon the amount and quality of the latex produced. He has studied the seeds with the idea of discovering why certain of them produced vital, thrifty, trees, and so many other trees of a mediocre quality. It was he who discovered that after *Castilloas* had grown like weeds for four or five years and then apparently stopped for one or two, that it was because the quality and depth of the soil had not encouraged the growth of large laterals to furnish nutrition, when the tap root had done all it could. He was also the pioneer in stopping the careful cleaning under which grass flourished and allowing a carefully regulated jungle growth to cover the ground between the trees without robbing the soil to the detriment of the rubber tree. He was the first to advocate for plantation work a simple,

inexpensive native method of coagulation, and one of the first to appreciate and use the tapping tool that most Mexican planters to-day have adopted. With all his traveling, correspondence and plantation work, he keeps open house, and of the scores of travelers who have received his hospitality there are none but what go away impressed with his force, originality, capacity, and knowledge.

Mr. Harvey's career in connection with Mexican rubber planting is all the more interesting, in view of the fact that his work as a pioneer has been based largely upon individual initiative, and not supported by a large corporation, as in the case of so much planting in that country.

THE Mabira Forest (Uganda) Rubber Co., Limited, a £120,000 company organized in London in 1906 to operate in British East Africa, employing improved methods for dealing with *Funtumia elastica* trees, are shipping rubber. At a late London auction 165 packages sold for their account brought up to 4s. 1d. [=99½ cents] for dark sheet and 3s. 3d. [=79 cents] for rough sheet scrap. At the last Antwerp inscription a small amount of Uganda plantation rubber was offered.



JAMES CLAY HARVEY.

## THE RUBBER TRADE AT AKRON.

BY A RESIDENT CORRESPONDENT.

**A**T an informal meeting of tire manufacturers, including representatives of the Akron trade, held during the progress of the Grand Central Palace automobile show in New York, views were exchanged on the outlook for the coming season, and the conclusion was reached that all the tire factories of the United States cannot supply the demand for tires that 1909 promises. This conclusion was based on the estimate reached by automobile manufacturers that their output during 1909 will exceed 70,000 cars. This, of course, means that 70,000 sets of tires will be required, in addition to the equipment needed for replacements on old cars. This conclusion, it is believed, will have a wholesome effect in preventing the present tendency toward price cutting, which has caused some apprehension among manufacturers during the last year. It is in anticipation of this enlarged demand that Akron manufacturers have been hastening to increase their factory capacity. An estimate made by a representative of a rubber company who is closely in touch with the trade situation places the output of automobile tires in Akron factories during 1909 at more than \$15,000,000.

At the annual meeting of shareholders of The B. F. Goodrich Co., on January 20, the following directors were reelected: George W. Crouse, George T. Perkins, B. G. Work, Frank H. Mason, Elmer Shaw, Charles C. Goodrich, and H. E. Raymond. All live in Akron with the exception of Mr. Goodrich, whose home is now in New York. The directors on the same date reelected the following officers: George T. Perkins, chairman of directors; B. G. Work, president; Frank H. Mason, first vice-president; H. E. Raymond, second vice-president; Charles B. Raymond, secretary; Walter Folger, treasurer; W. A. Means, assistant treasurer; Elmer Shaw, general manager of works. The meeting was formal in its nature, and, according to the policy of the company, no financial statement was made public. A large increase of business is expected during the present year, to correspond with the extensions in the factory.

W. E. Hemenover has been promoted from the position of manager of the boot and shoe department (No. 25) of The B. F. Goodrich Co., to that of assistant general superintendent of the factory. The latter position has been vacant since over a year ago, when H. E. Joy, then assistant general superintendent, was advanced to the position of general superintendent, to succeed C. C. Goodrich, who then retired from active participation in the industry. Mr. Hemenover was secretary and superintendent of the Banner Rubber Co. (St. Louis) until January, 1904, when he disposed of his interest there and came to Akron to establish the Goodrich boot and shoe department.

Though the fine weather conditions in the early part of the winter have made it necessary to cut down the production of rubber shoe factories in the East, the Goodrich company have made no change in its working force in their shoe department, and have received orders sufficient to take care of the product of the shop.

Information from Ashland, Ohio, is to the effect that the volume of business at the plant of the Faultless Rubber Co. has increased so rapidly that further expansion has been made necessary. The construction of large additions to the factory is announced for the early spring. The Faultless plant was moved to Ashland from Akron several years ago.

Some of the rubber manufacturers are seeking to put a stop to the operations of certain organizations, among which are the "International Automobile League" of Buffalo, "The Coöperative Auto Association of America," New York; and the "Bureau of Automobile Auditors," New York. These concerns are said to advertise that they are able to supply tires and other accessories

to consumers at dealers' prices. To be able to sell tires at such prices it is necessary to obtain trade discounts from manufacturers. The latter are attempting to detect, by means of the serial number of tires sold, through what channel they left the manufacturer, with the intention of cutting off discounts from any dealers who sell tires in this manner.

OFFICERS of the Swinehart Clincher Tire and Rubber Co. planned to double the output of the factory during the coming year, at the annual meeting, held on January 20. The following officers and directors were reelected: President, J. A. Swinehart; vice-president, B. C. Swinehart; secretary and treasurer, C. O. Baughman; directors, J. A. Swinehart, B. C. Swinehart, C. O. Baughman, J. W. Beck, W. J. Frank and M. S. Rudgers. The usual dividend of 8 per cent. was declared.

The Swinehart company have granted the Canadian rights for the use of their patents to the Durham Rubber Co., of Toronto. J. A. Young, general manager, and J. C. Sterns, superintendent of the Durham company, were in Akron on January 11 to close the contract. Royalties are to be paid to the Swinehart company. The tires will carry the names of both companies.

CHARLES B. RAYMOND, secretary of The B. F. Goodrich Co., on January 12 was elected to the presidency of the Akron Chamber of Commerce. This comes as a recognition of Mr. Raymond's standing as a manufacturer in the community, and of his activity in the organization of the chamber. Mr. Raymond is a comparatively young man, and has risen rapidly in the rubber industry. He was formerly manager of the Akron plant of the American Hard Rubber Co., and is now a director in that organization.

What promises to be a substantial benefit to the rubber companies of this city is the freight auditing system now in the process of development by the Chamber of Commerce. An inspection department is also to be established and other steps taken to give the city superior shipping advantages.

THE Aluminum Flake Co., whose successful past year was referred to in the January issue of this paper, are understood to be in a position to do even more business this year. They are stated to have in hand orders and requisitions for 1909 delivery of more than 3,000,000 pounds of aluminum flake, which is coming into such general use in rubber factories in both America and Europe. The company are making arrangements to enlarge their plant to three times the present capacity, or to build anew on another site.

THE organization of the Mansfield Rubber Co. (Mansfield, Ohio) was completed on January 11. The officers were named in THE INDIA RUBBER WORLD January 1 (page 150). The directorate consists of these officers, with L. Hautzenroeder, H. Homberger and W. H. Bissman. The new factory will be located in the buildings occupied formerly by the National Vehicle Co., in Mansfield. Three carloads of machinery have been installed, and it is expected that operations will be started before March 1. The equipment is to include a 500 HP. Harris-Corliss engine power and four boilers, each 200 HP.

BYRON W. ROBINSON, a director in the Goodyear Tire and Rubber Co., though more prominent as the president of the Robinson Clay Product Co. and as head of the Akron Chamber of Commerce, died in Lakeside Hospital, Cleveland, on December 30, at the age of 48 years. His death was caused by arterial sclerosis.

CHRISTOPHER E. WILSON, aged 41, recently a tire salesman with the Denver Rubber Tire Co., and formerly with the India Rubber Co., of Akron, died at his home in Denver, Colorado, on January 5. He had long been suffering from tuberculosis. He was widely known as an expert salesman. He leaves a wife.

## News of the American Rubber Trade.

### APSLEY RUBBER CO.'S NEW CHICAGO DEPOT.

THE Rubber Manufacturing and Distributing Co., incorporated in 1906, and conducting business at Seattle and Spokane, Washington, have secured commodious quarters at Nos. 200-202 Monroe street, Chicago, and entered upon a general rubber jobbing business. Hereafter Chicago will be headquarters for this corporation, and it will give special attention to the city trade and that of the large territory tributary to Chicago, which will be cultivated with the same enterprise which led to the rapid success of the company's operation on the Pacific coast. The Rubber Manufacturing and Distributing Co. are the Chicago representatives of the Apsley Rubber Co. (Hudson, Massachusetts), and will handle the latter's well known line of "Dry Shod" boots and shoes, and their lines of mackintoshes and rubber clothing. The Hon. L. D. Apsley, the founder and president of the Rubber Manufacturing and Distributing Co., and among the larger stockholders in each company are to be found the names of well known capitalists. The Rubber Manufacturing and Distributing Co. opened their doors in Chicago on January 14, on which date many representatives of the Chicago rubber trade and others sent beautiful floral pieces. The house is in charge of Mr. L. B. Hitchings, treasurer of the corporation, ably assisted by Mr. Campbell.

### THE NEW BUFFALO FACTORY.

THE organization of the Preston Fabric Tire Co. (Buffalo, New York), the incorporation of which was reported in THE INDIA RUBBER WORLD of November 1, has been completed by the election of Christian Wesp, president; Morris R. Evans, vice-president; A. S. Collins, treasurer; Philip Wesp, Jr., secretary; and James F. Preston, general manager. They report having all the capital required, and a complete outfit of machinery. The object is the manufacture of automobile tires, tire tubes, cotton belting, and fire hose. Mr. Preston is the inventor of fabric weaving processes applicable to hose and tire making, which he at one time was engaged in manufacturing in Massachusetts.

### THE AMERICAN CONTINENTAL CAOUTCHOUC CO.

CONTINENTAL Caoutchouc Co. (Nos. 1788-1790 Broadway, New York) announce that all the Hanover interests in that company have been purchased, and that hereafter "Continental" products will be marketed by American interests only. Continental Caoutchouc Co., organized as the American branch of the Continental Caoutchouc- und Gutta Percha-Compagnie, became a corporation under the laws of New York June 23, 1903, since which time they have undertaken the manufacture of "Continental" tires in the United States.

### BORGFELDT'S RUBBER DEPARTMENT.

GEORGE BORGFELDT & Co. (New York) announce: "We are again sole agents for the United States and Canada for the Hanover Vulcanite Co., whose celebrated line of Hanover rubber goods we displayed under our roof for over a quarter of a century previous to the early part of last year." The German company referred to is the Hannoversche Gummi-Kamm Compagnie, Aktiengesellschaft, the business of which was established in 1862. Their lines handled by Messrs. Borgfeldt include rubber combs, pure red rubber toys, rubber sponges, and hard and soft rubber surgical goods. Mr. Julius Lehmann, as before, is manager of the rubber department at Borgfeldt's, which house has added to its list of branches one at Montreal, in the Coristine building, at St. Paul and St. Nicholas streets. They have new quarters in San Francisco at Nos. 770-776 Mission street.

### TRADE NEWS NOTES.

THE trustee of the Mechanical Rubber Co.'s first mortgage 6 per cent. bonds of the Mechanical Rubber Co., of 1893, announces that he is prepared to expend \$100,819.39 in the purchase of bonds of said issue, provided the same can be made advantageously, bids to be received up to February 15.

Mr. R. R. Drake, formerly associated with The Diamond Rubber Co., has severed that connection to assume charge of adjustments for the Continental Caoutchouc Co. (New York).

The plant of the Richmond Rubber Tire Co. (Richmond, Virginia), a tire selling and tire repair concern, was sold piecemeal at auction on January 7 by the receiver, Fairfax C. Christian.

The factory which the Converse Rubber Shoe Co. are building at Malden, Massachusetts, is intended to have a daily capacity of 3,500 pairs, and employ 500 hands. The company have opened temporary offices at No. 612 Atlantic avenue, Boston.

Joseph Dixon Crucible Co. (Jersey City, New Jersey) have elected George T. Smith, formerly vice president, to be president of the company, to succeed Edward F. C. Young, whose death was reported in THE INDIA RUBBER WORLD for January.

Continental Caoutchouc Co. (New York) have added to their list another distributing house for "Continental" tires, demountable rims, and accessories in lower California—Seecley, Van Zandt & Crackel, No. 938 South Main street, Los Angeles.

The business conducted formerly in Baltimore by The Linthicum Rubber Co., distributors of Banigan rubber footwear, in southern Pennsylvania, southern New Jersey, Delaware, Maryland, District of Columbia, the Virginias, Kentucky, and the South, since the death of President Charles W. Linthicum [see THE INDIA RUBBER WORLD, March 1, 1908—page 192] has taken the name Banigan Rubber Co. S. H. Jones is president and Z. T. Pindell treasurer.

In celebrating the completion of a four story addition to their plant, the officers and employes of the Firestone Tire and Rubber Co. (Akron, Ohio) joined in a supper and dance on the Tuesday evening following Christmas. Nearly a thousand guests were entertained on the fourth floor of the building. The Firestone Relief Association was launched on this occasion, with an initial membership of 400.

The accounts of Lucius C. Ryce as receiver of the Seward Rubber Co. (Berlin, Connecticut), making a final settlement with creditors, have been approved at the superior court at Hartford.

In the matter of the protest of Adolph Hirsch & Co. (New York) against the duty imposed on an importation of maniocaba (Ceará or Bahia rubber) seeds, the action of the collector was supported by the United States board of general appraisers. The seeds were classified under paragraph 254 of the Tariff act, which fixes the rate on seeds not specially provided for at 30 per cent. *ad valorem*.

THE INDIA RUBBER WORLD has pleasure in acknowledging the New Year's greeting of Joseph Dixon Crucible Co. (Jersey City, New Jersey), accompanied by the annual contribution of specimens of their products, especially adapted for use at the editorial desk.

Mr. Thomas Lang, of Malden, Massachusetts, who celebrated his eightieth birthday during the Christmas holidays, was associated with the late Hon. Elisha D. Converse for 37 years, in the capacity of bookkeeper and cashier. He was for years clerk of the Boston Rubber Shoe Co. and secretary of the board of directors, of which body he was a member. He retired from active work and severed his connection with the company in 1888.



## UNITED STATES RUBBER CO.'S SHAPES.

TRANSACTIONS on the New York Stock Exchange for five weeks, ending January 23:

## COMMON STOCK.

Week December 26	Sales 3,645 shares	High 35¼	Low 31¾
Week January 2	Sales 4,000 shares	High 36	Low 34
Week January 9	Sales 1,500 shares	High 34½	Low 33½
Week January 16	Sales 2,100 shares	High 33½	Low 32
Week January 23	Sales 4,540 shares	High 34½	Low 31

For the year—High, 34½, Jan. 2; Low, Jan. 22.

## FIRST PREFERRED STOCK.

Week December 26	Sales 780 shares	High 106	Low 105
Week January 2	Sales 1,400 shares	High 106¾	Low 105
Week January 9	Sales 2,655 shares	High 106¾	Low 105
Week January 16	Sales 3,450 shares	High 107	Low 104½
Week January 23	Sales 2,750 shares	High 104¾	Low 100½

For the year—High, 107, Jan. 12; Low, 100½, Jan. 23.

## SECOND PREFERRED STOCK.

Week December 26	Sales .... shares	High ..	Low ..
Week January 2	Sales 800 shares	High 73	Low 73
Week January 9	Sales 700 shares	High 73¾	Low 73¼
Week January 16	Sales 600 shares	High 72	Low 71
Week January 23	Sales 300 shares	High 72	Low 69

For the year—High, 73¾, Jan. 5; Low, 69, Jan. 22.

## COMMON STOCK, \$25,000,000.

Last Dividend, April 30, 1900—1%.

	1903.	1904.	1905.	1906.	1907.	1908.
Shares sold	80,890	285,819	723,668	607,800	175,277	191,200
Highest price	19¼	34½	58½	59½	52½	37½
Lowest price	7	10½	33¾	38	13½	17½

Highest, 1908, August 7; Lowest, February 26; Closing, 34.

## FIRST PREFERRED STOCK, \$36,263,000.

Last Dividend, January 30, 1909—2%.

	1903.	1904.	1905.	1906.	1907.	1908.
Shares sold	62,343	182,413	200,497	123,760	120,108	94,400
Highest price	58	100	118½	115	109¾	108
Lowest price	30¼	41	98¼	104¾	61¼	76

Highest, 1908, December 2; Lowest, February 19; Closing, 106½.

## SECOND PREFERRED STOCK, \$9,965,000.

Last Dividend, January 30, 1909—1½%.

	1905.	1906.	1907.	1908.
Shares sold	21,550	59,845	31,203	21,131
Highest price	83¾	87½	78½	75½
Lowest price	75	75	39	42

Highest, 1908, November 27; Lowest, February 21; Closing, 73.

## TRADE NEWS NOTES.

THE Eureka Fire Hose Manufacturing Co. (New York) have been awarded contracts for 5,000 feet of 2½-inch and 1,000 feet 3½-inch "Eureka" fire hose for Buffalo, New York, and 1950 feet 2½-inch "Eureka" hose for Jersey City, New Jersey—all 4-ply, manufactured for the new high-pressure pipe line service.

A suit brought by Lewis D. Parker, who for several years prior to June 7, 1904, was president and general manager of the Hartford Rubber Works Co., to recover under an alleged contract with the company to run until a considerably later date, is stated to have been settled amicably out of court. Mr. Parker was connected with the Hartford company, all told, some 13 years, becoming widely acquainted in the tire trade, and subsequently became interested in the manufacture of hardware and tools.

Mr. Joseph S. Capen, who is treasurer of the new Converse Rubber Shoe Co. [see THE INDIA RUBBER WORLD, January 1, 1909, page 150], was connected for 15 years with L. Candee & Co., and latterly with The Beacon Falls Rubber Shoe Co.

The Flexible Rubber Goods Co. (Winsted, Connecticut), the capital stock of which was increased recently from \$10,000 to \$35,000, have leased larger premises, with the privilege of buying. They make rubber brushes and other toilet articles and a "sucker" sole for athletic shoes.

A point indicative of the increasing consumption of rubber in balloons is the fact that lists of scraps of rubber are beginning to include waste balloon fabric.

## THE NEWEST "GOODRICH GIRL."

It is hard to say it better than The B. F. Goodrich Co. say it, and harder to do it better. "Adele, the Girl from Goodrich," is this year's beauty. She is "A rare, wistful, restful companion—just the sort for a man to take into his confidence. Heartease is her flower; sweet complacency her dowry; Goodrich Goods her prayer."

## CONSUMERS' RUBBER CO.

THE Consumers' Rubber Co., Inc. (Bristol, Rhode Island), are understood to be turning out weekly 1,000,000 feet of rubber insulated wire, requiring the operation of three connecting mills. The company have about completed the installation of a rubber shoe manufacturing equipment and as the president, Mr. Terrence McCarthy, has had an extensive experience in the trade, a new brand of McCarthy footwear in the near future need not cause surprise in the trade.

## NEW INCORPORATIONS.

THE Consolidated Rubber Co., of New Haven, January 5, 1909, under the laws of Connecticut; capital authorized, \$250,000; beginning business with \$5,000. Incorporators: William H. Hull, John Semon and Homer H. Shepard, all of New Haven. THE INDIA RUBBER WORLD is advised that no details can yet be given out for publication, but the articles of incorporation indicate the object of the company to be to deal in rubber and rubber products and the stocks or property of similar companies.

THE Bradley Tire Protector Co., November 21, 1908, under the laws of Texas; capital, \$20,000; to manufacture steel tire protectors. Incorporators: H. M. Bradley and Carrie T. Douglass, Fort Worth, and E. M. Bradley, Houston, Texas.

THE Bridgeport Webbing Co., January 12, 1909, under the laws of Connecticut; capital \$5,000. Incorporators: William Boyd Spencer, Nelson H. Downs and A. H. Raymond, all of Bridgeport, Connecticut. The president is Mr. Spencer, who also is president and treasurer of the Bridgeport Elastic Fabric Co., and the treasurer is Mr. Downs. The new company will occupy quarters with the Bridgeport Elastic Fabric Co., and for the present manufacture a line of goods similar to theirs, though intending later to develop a business along other lines. The Bridgeport Elastic Fabric Co., incorporated in June, 1902, with \$8,000 capital, have increased this to \$50,000 without the introduction of any outside interest. Mr. Spencer has been president since 1907.

## TRADE NEWS NOTES.

THE Maumee Rubber Co. (Nos. 224-226 Superior street, Toledo, Ohio), the incorporation of which was reported in THE INDIA RUBBER WORLD November 1, 1908 (page 77), is a new branch store of the United States Rubber Co., which will have the exclusive agency in that territory for the "Wales-Goodyear" and "Connecticut" rubber footwear brands. The president and treasurer is Albert D. Wentz, who after having been a handler of United States Rubber Co. brands for some years, became for awhile selling agent in Chicago of The Beacon Falls Rubber Shoe Co.

The cost of the highest priced diving apparatus offered by a leading firm in the trade is \$812.50, of which \$500 is required for the pumping and air supplying feature. The principal rubber items are two rubber diving dresses, at \$40 each; hose, \$57; and several minor items, \$12.75.

Kansas City Rubber and Belting Co. (Kansas City, Mo.) are distributing to their customers some handsome advertising cards, to which attention is certain to be attracted by the flower girl, which is a prominent feature.

The Birmingham Iron Foundry (Derby, Connecticut) remembered their friends at New Year's by sending out handsome memorandum books which doubtless will be treasured as souvenirs by all who received them.

## BOSTON BELTING CO.—ANNUAL.

At the annual meeting of shareholders of the Boston Belting Co., held November 28, 1908, the board of directors [see THE INDIA RUBBER WORLD, January 1, 1908—page 126] was re-elected without change. The officers also were re-elected: James Bennett Forsyth, president and general manager; J. H. D. Smith, treasurer and clerk. The balance sheet, as of September 30, 1908, stood as follows:

ASSETS.	
Real estate—Land .....	\$113,235.10
Real estate—Buildings .....	79,734.67
Machinery .....	240,736.60
Tools and fixtures .....	89,184.92
Furniture and fixtures .....	7,141.81
Cash .....	79,057.07
Investment account .....	621,489.52
Notes receivable .....	3,111.48
Bonds receivable .....	79,645.48
Accounts receivable .....	37,507.79
Merchandise .....	904,750.25
Tappan stocks .....	50.00
Trade marks .....	100.00
Colorado real estate .....	500.00
Portsmouth Forge, Bond and Stock account .....	250.00
Total .....	\$2,316,494.69
LIABILITIES.	
Capital stock .....	\$1,000,000.00
Reserve fund .....	800,000.00
Profit and loss .....	376,494.69
Notes payable .....	140,000.00
Total .....	\$2,316,494.69

## EMPLOYEES' CLUB IN A RUBBER FACTORY.

A ROOM in the factory of the Boston Woven Hose and Rubber Co., at Cambridge, Massachusetts, has been assigned for a club room for the carrying out of plans for the benefit of the employees, resulting from a conference between committees of foremen of the company and of the Cambridge Young Men's Christian Association. The room, 60 feet square, has been appropriately furnished and provided with reading matter under an arrangement with the public library. The assembly room is frequented by the employees at the daily noon hour, while on certain evenings of the week lectures are given. Besides, provision is made for games and music, and in two adjacent rooms lessons in English are given at certain hours to the non-English-speaking employees. The new institution has met with the approval of both employer and employees, and one advantage is that it lacks the feature of being promoted by the company for the men, the whole work being under the management of a committee chosen by the latter from their own ranks.

## THE SNOW MAN BACKWARD THIS YEAR.

THE weather in recent years has proved almost as uncertain as the prices of crude rubber as a subject for discussion in a trade paper. The reference to the tardy approach of "rubber" weather in the last INDIA RUBBER WORLD was in type before the snowfall of several inches, just before Christmas, which included New York city within its scope. That made real "rubber weather" for a day, but its effect upon the trade was soon lost. The present article is not a record of weather in general, not even of snow, but it may be mentioned here that the first United States government snow map for the new year—dated January 5—shows about the scantiest supply of snow that has ever appeared in a publication of this kind at such a date. There was snow reported, other than "traces," in only 17 of the 48 states and territories in the Union, and in most cases only in very limited quantities. Eleven inches of snow at Cornish, Maine, 10 inches at Koeppenick, Wisconsin, or 21 at Mancelona, Michigan, may sound well, but these are not centers of the trade in rubber footwear. A snow map which leaves out New York, Chicago, Philadelphia, Boston—and practically every other town of importance in the country—cannot be very pleasing to

anyone whose profits in business depend upon the sale of rubber boots and shoes.

\* \* \*

Later.—There has been some real snow already, and summer is still to come.

## THE TRADE IN HOSE RACKS.

W. D. ALLEN MANUFACTURING Co. (Chicago), manufacturers of the Bowes hose rack, report contracts during the month of January for a number of important buildings, among them the office buildings of the Senate and House of Representatives in Washington, and the Fifth Avenue building, which occupies the site of the old Fifth Avenue Hotel, in New York City. They report that the Bowes rack is popular on the Pacific coast, and good contracts from that territory are frequent.

## NEW RUBBER FACTORY IN OHIO.

A NEW company under the style The L. & M. Rubber Co. have begun the manufacture of druggists' sundries and mechanical goods at Canton, Ohio, succeeding to the business of The L. & M. Rubber Works, lately of Carrollton, Ohio. The manager is Mr. John J. Lee, who was with the former company.

## TRADE NEWS NOTES.

THE Boston house of the Beacon Falls Rubber Shoe Co. is now under the management of Daniel E. Gray, who has been connected with the company for several years.

The National India Rubber Co. (Bristol, Rhode Island) have recently renovated their entire plant, having, among other improvements, put in an entire new hose equipment and a new electric light and power plant. The company have also added a lead press for the manufacture of lead encased cables. The wire plant, which has been working nights since early fall, has been enlarged very greatly in the last three years.

Mead Fountain Pen Co. (No. 107 John street, New York) has been organized to manufacture fountain pens patented by Jacob J. Mead, who is president of the company. Albert J. Deubel is secretary and treasurer, and E. A. Tredwell assistant secretary. Mr. Mead has been engaged in this line for a number of years, being a practical rubber man.

The Massachusetts Chemical Co. announce the removal of their New York office from No. 237 Broadway to the Hudson Terminal building, No. 30 Church street, which will be the headquarters hereafter of Mr. A. G. Cozzens, sales agent. The offices are on the third floor, just at the bridge connecting the two halves of the building.

The Converse Rubber Shoe Co., recently organized, have placed a rush contract with the Aberthaw Construction Co. (of Boston) for the building of their fireproof building at Malden, Massachusetts. The new building will be erected next the Boston and Maine Western division tracks, near Edgeworth station. The floors and interior columns and the stairs will be of reinforced concrete. The exterior columns and roof trusses will be of steel, and the walls of brick. The building will be fireproof and generally up to date.

Mr. E. W. Harrall, president of the Fairfield Rubber Co. (Fairfield, Connecticut), is interested in the fine new hotel, the "Stratfield," that has just been opened in Bridgeport, Connecticut. He writes that it is the largest and best hotel between New York and Boston, and he certainly knows big and good hotels. May it be as prosperous as is the Fairfield company.

Alfred C. Adler, of Somerville, Massachusetts, appeared for trial in the Waltham court on January 1, on a charge of obtaining money under false pretenses, and was acquitted. The complainant had bought through Adler shares in La Victoria and El Triunpho rubber plantations, in Nicaragua. The court sympathized with any investor who had failed to profit, but could not find anything in the evidence to indicate false pretenses on the part of the accused who was promptly released.

## PERSONAL MENTION.

IN the sketch of Dr. Joseph Torrey in THE INDIA RUBBER WORLD of January 1 (page 132), a slight error occurred. Instead of what was printed there it should have been stated that while at Harvard he took an "assistantship," which was followed by an "instructorship," which continued until he left the university, in 1900.

Mr. Lester Leland, second vice-president of the United States Rubber Co., is spending the winter abroad, having sailed from his home in Boston just before New Year's.

Mr. Francis L. Hine, who for some years had been vice-president of the First National Bank of New York, was elected president at the annual meeting on January 12, to succeed Mr. George F. Baker, resigned. Mr. Hine is serving for the sixth year as a director in the United States Rubber Co., and he is connected with many other important corporations. He was president for some years of the Nashawannuck Manufacturing Co., makers of narrow textile fabrics, in which men of prominence in the rubber trade have been interested from the time that the late Christopher Meyer filled the office of president. The Nashawannuck company was incorporated by Chapter 132 of the laws of Massachusetts for 1850.

Mr. A. M. Stickney, president of the Wellman Sole Cutting Machine Co. (Medford, Massachusetts), is enjoying a winter vacation in the south of France.

At the eleventh annual dinner of the Victorian Club, the leading British club of New England, Mr. Elston E. Wadbrook, of Poel & Arnold (Boston), whose nomination to the presidency of the organization was noted in a previous issue of this paper, was unanimously elected president.

The town of Marion, Massachusetts, is to have an industrial educational institution, with which an employment bureau may be connected, as the result of a movement initiated by Mrs. Harry E. Converse, wife of the president of the Boston Rubber Shoe Co., whose summer home is in Marion.

Mr. Isaac Crocker, of Providence, Rhode Island, the head of an important chain of retail rubber stores in New England, accompanied by a few friends, is mentioned by the Laconia (New Hampshire) *Democrat* as having made lately an exceptional catch of trout and pickerel from Lake Winnepesaukee, near Glendale, New Hampshire, where Mr. Crocker owns several cottages. Part of the catch figured in a dinner given by Mr. Crocker at Wolfe's Hotel in Providence, on January 5.

Mr. Kenzo Okada, general manager of the Fujikura Insulated Wire and Cable Co., Tokio, Japan, who underwent quite a serious operation at the Tokio Hospital, is fully recovered and again at the helm in the Tokio factory. Mr. Okada will be remembered by many friends whom he made while sojourning in the United States for some years.

A round of presentations at the factory of the National India Rubber Co. (Bristol, Rhode Island) on the day preceding Christmas, was an occasion of much enjoyment to all concerned. To the general agent, Mr. Le Baron C. Colt, was presented a beautiful sterling silver pitcher, on behalf of the management and salesmen. Mr. Walter De F. Brown, the secretary and treasurer, received a handsome cane from the office force. Nearly all the officials and foremen were remembered, and some of the older employees, who received presents from the younger workers in their respective departments.

Mr. John J. Voorhees, president of the Voorhees Rubber Manufacturing Co. (Jersey City, New Jersey), lectured on the evening of January 19, before the Men's Club of the Bergen Reformed Church, on the subject of "Rubber," giving an interesting account of how this material is obtained, in the first place, and tracing the various stages through which it passes until developed into factory products of almost infinite variety.

## PERSONAL MENTION.

THE most exciting general news of the past month related to the accident at sea near the New England coast to the steamer *Republic*, the passengers on which, fortunately, were rescued before the steamer went down, through the aid from other ships secured by the medium of wireless telegraphy. One of the passengers was Mrs. Alice Morse Earle, an authoress of distinction, who fell into the sea while being transferred from the sinking *Republic*, but was rescued. The lady is the widow of Henry Earle, who was the founder of the rubber brokerage firm of Earle Brothers, of New York.

After the tiresome work of taking inventory, at the end of the year, the officers of the Fairfield Rubber Co. (Fairfield, Connecticut), together with the whole clerical force, dined at the Stratfield Hotel, Bridgeport, going later to the theatre. The pleasure of the reunion was contributed to by speeches made by Major W. W. Harral, manager of the company; Frank Hotchkiss, superintendent, and Secretary Goodell. Mr. C. Harral, son of the president, pleased the company with several songs.

Major J. Orton Kerbey, formerly United States consul at Pará and now connected with the International Bureau of the American Republics, and whose name is familiar to INDIA RUBBER WORLD readers, was invited recently to deliver an address on Brazil before the boys of Peddie Institution, located near Princeton, New Jersey. The International Bureau, by the way, has devoted itself unceasingly to bring about closer relations between educational institutions in the various republics contributing to its support.

Mr. William J. Slater, lately advertising manager, Firestone Tire and Rubber Co. (Akron, Ohio), has severed his connection with that company to take up the general management of the Kalamazoo (Michigan), *Telegraph*, a newspaper in which he has recently become financially interested.

## CALENDARS FOR 1909.

HAZARD Manufacturing Co. (Wilkes-Barre, Pennsylvania) send out a calendar designed expressly for them, composed of a separate sheet for each month, 17 x 22 inches, and each illustrated differently, to indicate the character of the company's production of insulated wires and wire rope.

The Adamson Machine Co. (Akron, Ohio) send out a calendar ornamented with a reproduction in colors of Carl Fedeler's painting, "After the Storm."

The Indiana Rubber and Insulated Wire Co. (Jonesboro, Ind.) send out a calendar mounted on a large card giving a good view of the works of the company.

Apsley Rubber Co. (Hudson, Massachusetts) send out a calendar, the illustration on which is a picture, full of life, of a Saturday night scene in a New England country store.

James Boyd & Brother, Inc. (Philadelphia), sent out a calendar arranged with one leaf for each week in the year, in the same attractive and convenient style that they have used for this purpose for many years past.

The Trenton Rubber Manufacturing Co. (Trenton, New Jersey) have sent us the smallest calendar for the new year received to date, but one of the most attractive, it being embellished with a reproduction in miniature of a famous painting by a French artist.

Joseph Fynney & Co., of Liverpool, have again rendered the trade a service by bringing out at the usual date their "Diary for 1909, With 'Loss in Washing' and Parity Tables and Statistics." The whole is compact, well arranged, and evidently accurate, and is sure to be appreciated by every buyer of raw rubber fortunate enough to secure a copy.

Elmer E. Bast, Chicago manager of Hamilton Rubber Manufacturing Co., and The American Belting Co., sends out a tasteful new calendar ornamented by a photograph of a pretty girl—"Suzanne."



## INTEREST AND DIVIDEND PAYMENTS.

INTEREST on the 6 per cent. debentures of the New York Belting and Packing Co., Limited, and on the first mortgage 6 per cent. bonds of the Mechanical Rubber Co., were payable on and after January 1, at the offices of the Knickerbocker Trust Co. in New York.

Interest on the 6 per cent. debentures of Okonite Co., Limited, was payable on and after January 1, at the offices of Winslow, Lanier & Co., in New York.

It is reported in financial circles that the annual interest payment due on April 1, on the 4 per cent. income bonds of the Consolidated Rubber Tire Co. will be  $3\frac{1}{2}$  per cent. The bonds date from April 1, 1901, and the amount outstanding is \$2,850,500. Last year's interest payment was 2 per cent.

The board of directors of the United States Rubber Co. on January 7 declared from its net profits a quarterly dividend of 2 per cent. on the first preferred shares, and a quarterly dividend of  $1\frac{1}{2}$  per cent. on the second preferred shares, both payable January 30 to shareholders of record on January 15.

## TRADE NEWS NOTES.

THE Hood Rubber Co. recently offered \$100,000 of their preferred stock at \$120, bringing the total issue of preferred up to \$700,000, of which \$600,000 was sold during 1908. Of this amount 4,000 shares were sold at par, 1,000 at \$110, and 1,000 at \$115. The company have been paying quarterly dividends of  $1\frac{3}{4}$  per cent. on the preferred stock.

Of the United States Rubber Co.'s \$20,000,000 loan mentioned in the last INDIA RUBBER WORLD (page 152), \$15,000,000 was offered by New York banking houses on December 30, when the amount was largely oversubscribed before noon. The offering price was  $101\frac{1}{2}$ , at which the yield is 5.80 per cent., but the bonds sold on the "curl" market during the day at  $1\frac{1}{4}$  above the subscription price.

The Firestone Mutual Relief Association was organized among the employees of the Firestone Tire and Rubber Co. on January 1. A constitution and by-laws have been adopted and 400 charter members are expected. The plan of the association is to promote unity and sociability and to provide sick and death benefits for members of the office and factory force.

Theodore Hofeller & Co. (Buffalo, New York) issue a handsome calendar. The illustrative feature is a series of views of their business premises at different dates from their foundation.

The name of the European representatives of the U. S. Rubber Reclaiming Works (New York) has been changed to Arthur Meyer & Co., Limited.

The largest rubber tires yet seen in use in New York appeared recently on a gasoline truck made by the Hewitt Rubber Co. (New York), weighing about 12,000 pounds, and loaded on some days with 20,000 pounds of coal, or about 32,000 pounds total weight to be considered by the tire company supplying the rubber equipment. The tires used were the "Kelly-Springfield Sectional," made for commercial vehicles. Tires for such large vehicles are made in the "dual" type, and in this case were 44 x 7 inches (dual) for the rear wheels, and 36 x 5 inches (dual) for the front wheels. In other words, the rear wheel tires have 14-inch and the front wheel tires 10-inch bases.

And now comes a blue inner tube. It is called the "Sterling" and is made by the Rutherford Rubber Co. (Rutherford, New Jersey). Really there is no reason why, if some such compound as used in the famous "Blue Blood" packing, or perhaps a bit richer, a blue tube might not be a winner.

Continental Caoutchouc Co. (New York) have added to their list of distributors the Columbus Buggy Co., Nos. 810-814 Walnut street, Kansas City, Missouri, to cover the trade in "Continental" goods in western Missouri and Oklahoma.

Continental Caoutchouc Co. (New York) have inaugurated a department of tests for their tires, in charge of Mr. Thomas Lynch, the well known automobile driver and racing man.

## SELLING RUBBER BY "INSCRIPTION."

WHILE the sale of crude rubber in Europe by the method which is most widely known through its use at Antwerp—this being the largest market to which the inscription method applies—has been so long established, it appears not yet to be thoroughly satisfactory. THE INDIA RUBBER WORLD, without meaning to go on record for or against the system, has given space from time to time to various articles on this subject, and prints below a communication on the subject from an important house in the Amsterdam trade. Reference may be made here to articles previously printed on the subject—for example, the following: In our issue of November 10, 1897 (page 53) from the management of the Society of German Rubber Manufacturers, protesting against the Antwerp system, a defense of the system by an important Antwerp firm, December 10, 1897 (page 86), and a further defense by the manager of the rubber department of an Antwerp firm, February 19, 1898 (page 133).

TO THE EDITOR OF THE INDIA RUBBER WORLD: Rubber has been sold by inscription at Rotterdam ever since it appeared on this market. Indeed, the sale by inscription is the old Dutch selling system, which also was adopted by Antwerp when rubber began to come to that market.

The system has its merits and its faults. On an average it is considered to bring the best price for the importer, but in many cases we think that the highest bidder, who has bought the lot, would have been overbid in an open auction. This, of course, refers to strong markets.

In dropping markets, on the contrary, many lots would not nearly fetch the price paid for them in inscriptions, so that it is a fact that the results of inscriptions very often do very badly represent the real market tendency. One buyer may pay high prices for certain lots for reasons of his own, while the others are miles below him, but of course he does not know it. Something like this must have been the case in the Antwerp December inscription which, according to the unanimous judgment of the trade in Europe, was enormously overpaid.

A great fault of inscriptions, of course, is that you never know whether you will get the rubber you should like to buy or not, which is very awkward, especially in the case of manufacturers. The consequence of this is that the competition in inscription sales is more and more limited to dealers only.

On the other hand, I can understand that importers do not like public auctions, when I see the results of the weekly auctions in Liverpool, for example, where the greater part is always withdrawn in the auction and the business is done privately afterwards

STONEHAM.

Rotterdam, January 7, 1909.

## AN INQUIRY REGARDING ELATERITE.

TO THE EDITOR OF THE INDIA RUBBER WORLD: I have been informed that if elaterite could be dissolved by a cold process, it might be of some value in the rubber field. I have, therefore, employed a party to make some tests for dissolving it, and he finds it readily dissolves by a certain process. I would like if through the readers of THE INDIA RUBBER WORLD I could ascertain the best field for its application.

ERIE.

Buffalo, New York, December 19, 1908.

A BILL introduced recently into the Brazilian congress exempts from the payment of import duties any material or machinery for rubber factories brought into that republic during three years. It also authorizes the government to grant a premium of 50,000 milreis [= about \$18,500, gold, at current exchange] to any person inventing an economical process for extracting, coagulating or curing rubber. It is stated that a Brazilian company is negotiating for the purchase of machinery for a rubber goods factory to be established at Rio de Janeiro.

## Some Crude Rubber Sources.

### BRAZIL'S SHARE IN RUBBER PRODUCTION.

SOME statistics of rubber production which appear in the able Parisian journal, *Le Brésil*, are of interest, though we do not know how far they approach accuracy, in the absence of any knowledge as to the sources of information of our contemporary. What *Le Brésil* really does, in this case, is to figure out the share of Brazil in the world's production of rubber for nine calendar years, ranging, according to its computation from 49.14 per cent. in 1899 to 50.70 per cent. in 1907. The figures are given in detail in the table which follows.

The figures in the middle column of the table, however, are not derived from *Le Brésil*. Accepting as credible the official record of rubber production in Brazil supplied by the statistical department at Rio de Janeiro, for the years 1903 to 1907, inclusive, we have applied *Le Brésil's* percentages, with the result that the world's total rubber output for 1903 works out at 59,500,938 kilograms [=130,902,064 pounds], and so on for the succeeding years. Expressed in pounds the production for 1907 would be 158,337,500.

YEAR.	Total Kilos.	Brazil's Share.
1899 .....	.....	49.14%
1900 .....	.....	48.14%
1901 .....	.....	50.98%
1902 .....	.....	54.88%
1903 .....	59,500,938	53.28%
1904 .....	61,011,576	51.75%
1905 .....	68,325,500	51.80%
1906 .....	68,549,488	51.00%
1907 .....	71,971,591	50.70%

These figures are presented for what they may be worth, in the absence of any known to be more authentic.

### YIELD OF RUBBER TREES IN BRAZIL.

IN an article on rubber in northern Brazil contributed to the *Pall Mall Gazette* (London), the writer speaks of experiences in the Acre territory, and mentions particularly two estates producing each about 200 tons of rubber yearly. He found that on the lowlands, where the rubber season is shortened by the annual rise in the rivers, the *seringueiros* average from 300 to 400 kilograms [=660 to 880 pounds] per year, while on higher lands, with a working season of about nine months, they bring in from 600 to 700 kilograms [=1,320 to 1,540 pounds] per year. Supposing that these workers average 500 kilos yearly, 400 men would be needed to produce 200 tons of rubber. This writer intimates that at present all the *seringueiro* gets for his work is food and clothes, and that if there were better business organization as a general thing it would be possible to equip and pay rubber gatherers on a basis which would permit a profit in the rubber business with the price of rubber delivered at the steamer landings at a shilling per kilogram [=about 11 cents per pound], or even less. He writes that many natives from Barbados are to be found gathering rubber in the Acre, and that they usually bring in a greater amount of rubber than the Brazilians.

### "PALO AMARILLO" AS A RUBBER TREE.

INTEREST has been revived of late in the possibility of obtaining rubber in commercial quantities from the Mexican tree known locally as *el palo amarillo* (the yellow tree). It was at one time designated botanically as *Euphorbia elastica* and latterly as *Euphorbia fulva*. This tree and its product was the subject of a report in THE INDIA RUBBER WORLD February 1, 1906 (page 148), the conclusion of which was that it appeared to be of little value in yielding rubber. The tree has continued to be the subject of study, however, and it has now been brought to notice again rather prominently through the efforts of a pro-

motor, hailing from New York, under the name William H. Ellis. He represents himself in Mexico as having formed a \$20,000,000 corporation with the name Consolidated Palo Amarillo Co., and in which some wealthy New Yorkers are reputed to be interested. He has been active in this interest in the region of Torreón, and United States consuls have been writing reports on the possible new source of rubber. It appears certain that Ellis has secured reports on the tree and its latex from Dr. H. H. Rusby, dean of the College of Pharmacy, of Columbia University, and Dr. Fernando Altamirano, director of the National Medical Institute of Mexico, and the names of those two eminent scientists are being used to aid in the promotion of the Ellis company. The commercial history of this tree and its product is very brief.

Ellis was last mentioned in THE INDIA RUBBER WORLD something over two years ago as being active in Mexico trying to



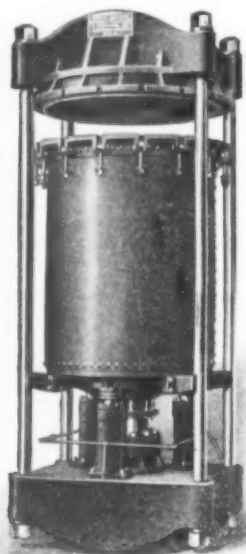
"PALO AMARILLO" (YELLOW TREE).

form a guayule rubber company. He had then lately returned from Abyssinia, where he had tried to promote trade relations between that country and the United States, in consequence of which he was honored by the Emperor Menelik with the title Duke of Hawash. Ellis claims concessions in Abyssinia for lands said to contain rubber forests.

THE INDIA RUBBER WORLD, it must be confessed, views "palo amarillo" gum with a certain prejudice—perhaps an unfair one. At first sight it seems too sticky and resinous to be of much value. At the same time, that was much the way that guayule rubber looked a few years ago. It is possible that if the latex is abundant, and can be gathered cheaply, if it contains 10 per cent. of rubber or more that can be extracted by some simple process, and if it is of good quality, the extraction may be worth while.

## NEW AUTOMOBILE TIRE PRESS.

A NEW type of vulcanizing press which has come into prominence in connection with the development of the automobile tire industry is known as the "heater" press. The principle of this press is to combine the hydraulic pressure obtained in the ordinary type of hydraulic press with the advantage of curing in open steam, as in the older forms of shell or steam vulcanizers. Manufacturers of automobile tires have



found this type of press of distinct advantage, and there appears to be a growing demand for it. The accompanying cut shows a type of this press which has met with popular favor, and a large number of this type have been constructed already for the leading tire manufacturers in the United States. [Farrel Foundry and Machine Co., Ansonia, Connecticut.]

## CHANGES AT PARA.

A CHANGE has occurred in the firm of Schrader, Gruner & Co., involving the retirement under their articles of association of Wilhem Richard Schradre Schrader and Christian Ludwig Nommensen as from January 1. The business will be continued under the style Gruner & Co., consisting of K. F. H. G. Gruner, Emil Albert Zarges, Oscar F. A. Dusendschön, general partners, and Heilbut, Symons & Co., of London and Liverpool, as special

partners. The capital of the firm is 2,300,000 milreis, of which 600,000 milreis is contributed by the special partners. The same details relate to the branch firm at Manáos, which is changed in style from Dusendschön, Nommensen & Co., to Dusendschön, Zarges & Co.

Heilbut, Symons & Co., of London and Liverpool, announce that their Mr. L. A. Grossman, so long connected with the firm and being desirous of retiring from business, ceased to be a partner as from December 31, 1908. The business will be continued under the same style by the remaining partners, Samuel Heilbut and F. S. Pusinelli, in conjunction with Hermann Reimers, formerly of the affiliated New York house, who was admitted as a partner as from January 1.

## MR. MINER AND THE CANADIAN RUBBER TRADE.

MR. S. H. C. MINER advises THE INDIA RUBBER WORLD that during the recent stock movement in the shares of the Canadian Consolidated Rubber Co., Limited, he sold his entire holdings, with the exception of 50 shares of preferred and 50 shares of common, in the open market. He adds that he is now a "free lance," with mills for rubber manufacture in process of erection well advanced, and will be producing goods this year.

Reports have been current for some months past of important orders placed by Mr. Miner for rubber manufacturing machinery to be installed in new buildings which have been going up at Granby, Quebec, and these reports are now confirmed by Mr. Miner's statement. Mr. Miner was long a prominent figure in the rubber industry in Canada, and upon the organization of the Canadian Consolidated Rubber Co., Limited, in 1906, he was the first to be elected president.

Montreal newspapers of January 25 reported a very considerable rise in quotations of the common stock of the Consolidated company, due to information which has become public regarding the large earnings of the past year. The Montreal *Star* of the date named, mentioning the success of the company, says:

"The consolidation had not been launched very long before it attracted the attention of several United States capitalists, who took over a portion of the holdings of some of the directors, at a substantial profit to the latter. The control now rests with a syndicate, of which a few of the directors are members, and one of these days it will probably be announced that this syndicate will turn over the control to the United States Rubber Co."

Mr. HENRY C. PEARSON, the Editor of THE INDIA RUBBER WORLD, will lecture on "India-rubber" before the Boston School of Economics, on February 10; on "The Briton in India-rubber, as Planter and Manufacturer," at the next dinner of the Victorian Club, at the Hotel Westminster, Boston, on February 11; and on "Glimpses of Tropical Lands" before the Current Topic Club, at Hartford, on February 16.



FACTORY OF KAUFMAN RUBBER CO., BERLIN, ONTARIO.

## Rubber Scrap Prices.

LATE New York quotations—prices paid by consumers for carload lots, per pound—show a slight decline as compared with last month:

Old rubber boots and shoes—foreign ..	8 3/8 @ 8 1/2
Old rubber boots and shoes—domestic.	8 3/4 @ 9
Pneumatic bicycle tires.....	6 @ 6 1/2
Automobile tires .....	6 @ 6 1/2
Solid rubber wagon and carriage tires.	7 @ 8
White trimmed rubber .....	10 1/2 @ 11
Heavy black rubber.....	5 1/4 @ 5 1/2
Air brake hose.....	3 3/4 @ 4
Garden hose .....	2 @ 2 1/4
Fire and large hose .....	2 3/4 @ 3
Matting .....	1 1/2 @ 1 5/8



## Review of the Crude Rubber Market.

THE condition of the crude rubber market, considered broadly, is that production of rubber is on a scale normal as compared with recent years, and that stocks have declined to a point which indicate that the surplus accumulated during the inactivity of rubber factories during part of the last year has practically disappeared. As will be indicated by reports on the situation on other pages of this issue, the production of other grades than Pará shows a declining tendency, and any deficit from this source cannot be looked for to be made up other than from plantation rubber.

In America the industry is active, with the exception of the rubber footwear branch, in which a number of important factories, it is announced, will be closed during the current month. How far this reduced consumption of rubber will be offset by the activity in mechanical lines can only be conjectured. It is known, however, that the tire trade, particularly, is very active, and all indications are that a good business is being done in all lines except footwear, which branch is feeling the effect of the recent unseasonable weather—considered from the standpoint of rubber boots and shoes.

The New York market for Pará sorts has been quiet during the month just closed, but at the same time a condition of firmness has prevailed, and the month has been without marked fluctuations. New Islands fine has advanced a point, and is now at about 60 per cent. over one year ago. New Upriver fine is unchanged, and one or two other grades are a cent a pound lower.

The important inscription sale at Antwerp on January 21 went off at an average of about 25 centimes per kilogram (about 2 1-5 cents per pound) above broker's estimates, which is rather out of keeping with conditions in England and America, where the market is a trifle easier than some time ago. At the same time, all reports from Amazon primary markets are that sales are being effected at prices higher relatively than are being paid in the consuming markets.

The prices of Africans have changed irregularly, a few grades being quoted higher than a month ago; but for the most part a decline is shown, with some sorts unchanged. Centrals, on the whole, show a decline, while East Indian is without quotable change.

The arrivals at Pará of rubber of all kinds (including caucho) since the beginning of the crop season have been slightly more than last year, and larger than in any previous year except 1905-06. The figures for four years follow:

	1905-6	1906-7	1907-8	1908-9
July .....	1,450	1,840	1,370	1,300
August .....	1,300	1,690	1,500	1,890
September .....	2,200	2,070	2,420	2,355
October .....	3,580	3,030	3,200	3,460
November .....	2,890	3,480	3,200	3,430
December .....	3,270	2,610	2,560	3,300
January .....	5,710	3,780	4,860	43,855
Total .....	20,400	18,500	19,100	19,590

[a—To January 28, 1909.]

The importation of crude rubber into the United States during the year 1908, despite the financial depression with which the year opened, was larger than in any preceding year (with the single exception of 1906, when the total was 659 tons more). The combined deliveries to manufacturers in the United States and Canada were the same as during 1905, but somewhat smaller than during 1906 and 1907.

Following are the quotations at New York for Pará grades one year ago, one month ago, and January 30, the current date:

PARA	Feb. 1, '08.	Jan. 1, '09.	Jan. 30.
Islands, new, fine.....	71@72	113@114	114@115
Islands, fine, old .....	none here	none here	none here
Islands, fine new .....	74@75	121@122	121@122
Upriver, fine, old .....	75@76	124@125	123@124
Islands, coarse, new .....	45@46	55@56	56@57
Islands, coarse, old .....	none here	none here	none here
Upriver, coarse, new .....	55@56	92@93	92@93
Upriver, coarse, old .....	none here	none here	none here
Cametá .....	61@62	61@62	62@63
Caucho (Peruvian), sheet	50@51	71@72	72@73
Caucho (Peruvian), ball.	55@56	83@84	83@84
Ceylon (Plantation), fine sheet .....	89@90	129@130	128@129

### AFRICAN.

Sierra Leone, 1st quality.	96@97	Lopori ball, prime....	109@110
Massai, red .....	96@97	Lopori strip, prime....	85@86
Benguella .....	61@62	Madagascar, pinky....	91@92
Accra flake .....	20@21	Ikelemba .....	none here
Cameron ball .....	60@61	Soudan niggers .....	82@83

### CENTRALS.

Esmeralda, sausage .....	80@81	Mexican, scrap .....	79@80
Guayaquil, strip .....	69@70	Mexican, slab .....	56@57
Nicaragua, scrap .....	78@80	Mangabeira, sheet .....	53@54
Panama .....	60@61	Guayule .....	30@31

### EAST INDIAN.

Assam .....	92@93	Borneo .....	35@45
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Late Pará cables quote:

	Per kilo.		Per kilo.
Islands, fine .....	5\$400	Upriver, fine .....	6\$375
Islands, coarse .....	2\$400	Upriver, coarse .....	4\$375
		Exchange .....	15¼d.

Latest Manáos advices:

Upriver, fine .....	6\$750	Exchange .....	15¼d.
Upriver, coarse .....	4\$750		

### Statistics of Para Rubber (Excluding Caucho.)

	NEW YORK.		Total		
	Fine and Medium.	Coarse.	1908.	1907.	1906.
Stocks, November 30.....	136	112	248	135	98
Arrivals, December .....	1706	593	2299	1078	2136
Aggregating .....	1842	705	2547	1213	2234
Deliveries, December .....	1647	650	2303	1099	2058
Stocks, December 31.....	195	49	244	114	176
	PARA.		ENGLAND.		
	1908.	1907.	1908.	1907.	1906.
Stocks, Nov. 30....	475	140	860	136	640
Arrivals, December....	3015	2285	2555	1439	1015
Aggregating .....	3490	2425	3415	1575	1115
Deliveries, December..	2795	2177	3415	800	750
Stocks December 31.	695	248	...	775	830
			1908.	1907.	1906.
World's visible supply, December 31....	2,314	2,314	2,484	1,978	
Pará receipts, July 1 to December 31....	14,075	12,900	13,400		
Pará receipts of Caucho, same dates.....	1,665	1,340	1,205		
Afloat from Pará to United States, Dec. 31	849	585	952		
Afloat from Pará to Europe, Dec. 31.....	251	707	485		

### Liverpool.

WILLIAM WRIGHT & Co. report [January 1]:

*Fine Pará.*—Considering the time of year the market has been active during the month; prices declined fully 3d. per pound, but have since recovered, and close at about 1d. per pound below last month's closing value for spot, and 2d. lower for forward positions; principal operators are, however, rather buyers than sellers at the decline. America, in spite of importing largely direct from Brazil, has taken 500 tons from the Liverpool market, and during the last six months we estimate the quantity of Pará rubber shipped from Liverpool to New York to be 1,750 tons, in addition to direct shipments from Brazil of 8,420 tons. This is an important factor for manufacturers to take into account. Receipts for the first six months of the crop show an increase of 1,500 tons Pará, but facilities for navigation have been exceptional, and therefore it is possible that some of the increase during the past may be at the expense of the following six months. In our opinion a basis of about 5s. (= \$1.21.6) for hard fine will be a safe one for a manufacturer to operate on. [This was about the prevailing rate at New York at the date of the above report.—THE EDITOR.]

## Antwerp.

## RUBBER STATISTICS FOR DECEMBER.

	1908.	1907.	1906.	1905.	1904.
Stocks, Nov. 30..kilos	604,170	1,015,282	714,919	635,296	611,726
Arrivals in December.	520,182	219,544	636,460	474,175	581,844
Congo sorts .....	454,701	190,000	579,700	430,404	460,386
Other sorts .....	65,481	29,544	56,760	37,771	121,458
Aggregating .....	1,124,352	1,234,826	1,351,379	1,109,471	1,193,570
Sales in December...	528,617	227,932	693,195	374,284	652,209
Stocks, December 31.	595,735	1,006,894	658,184	735,187	541,361
Arrivals since Jan. 1.	5,035,344	5,054,473	5,772,062	5,713,728	5,763,856
Congo sorts .....	4,262,531	4,346,141	4,593,759	4,442,607	4,723,618
Other sorts .....	772,813	708,332	1,178,303	1,271,121	1,040,238
Sales since Jan. 1....	5,446,503	4,705,763	5,849,065	5,519,805	5,833,395

## RUBBER ARRIVALS FROM THE CONGO.

DECEMBER 28.—By the steamer <i>Albertville</i> :	
Bunge & Co. ....(Société Générale Africaine) kilos	74,500
Do .....	97,500
Do .....	800
Do .....	17,800
Do .....	5,000
Do .....	6,100
Do .....	1,000
Do .....	92,000
Société Coloniale Anversoise .....	6,300
Do .....	8,400
Do .....	9,200
Do .....	2,200
G. & C. Kreglinger .....	7,700
L. & W. Van de Velde .....	6,000
Paul Osterrieth .....	1,800
	336,300

THE offerings at the monthly inscriptions on January 21 embraced 251 tons, involving an unusually large number of grades—the Congo Free State, French Congo, Straits Settlements, Java, Sumatra, Uganda, Mexico, and Central America being represented. There were included 11,095 kilograms [=24,409 pounds] of plantation crepe from the Straits and 24 tons of Mexican guayule.

THE American Congo Co. figured as sellers, at the December auction, of 1,500 kilos Congo rubber at 11.30 francs [=99 cents

per pound] and 2,000 kilos at 6.17½ francs [=54 cents]. The broker's estimation on the two lots had been, respectively, 12.25 and 5.50 francs.

## IMPORTS FROM PARA AT NEW YORK.

[The Figures Indicate Weights in Pounds.]

DECEMBER 29.—By the Steamer <i>Crispin</i> , from Manáos and Pará:					
IMPORTERS.	FINE.	MEDIUM.	COARSE.	CAUCHO.	TOTAL.
A. T. Morse & Co. ....	538,700	114,600	78,000	39,500	770,800
General Rubber Co. ....	276,900	79,100	97,300	7,400	460,700
Poel & Arnold .....	248,400	27,600	85,000	11,200	372,200
New York Commercial Co. ....	125,300	33,200	37,900	13,600	210,000
C. P. dos Santos .....	75,800	7,800	15,200	2,200	101,000
Hagemeyer & Brunn .....	31,000	.....	42,200	.....	73,200
Wm. E. Peck & Co. ....	8,900	.....	3,300	.....	12,200
Edmund Reeks & Co. ....	11,100	.....	700	.....	11,800
L. Johnson & Co. ....	.....	.....	6,600	.....	6,600
Total .....	1,316,100	262,300	366,200	73,900	2,018,500

JANUARY 9.—By the Steamer <i>Maranhense</i> , from Manáos and Pará:					
A. T. Morse & Co. ....	432,600	75,000	104,600	82,900	695,100
Poel & Arnold .....	151,400	41,100	118,100	20,200	330,800
General Rubber Co. ....	161,800	61,800	74,200	11,500	309,300
New York Commercial Co. ....	108,500	18,100	43,500	6,200	166,300
C. P. dos Santos .....	23,600	5,700	96,400	17,200	142,900
Hagemeyer & Brunn .....	46,200	1,400	6,600	.....	54,200
Wm. E. Peck & Co. ....	18,000	.....	28,400	.....	46,400
Edmund Reeks & Co. ....	13,900	1,800	9,200	.....	24,900
Total .....	1,046,000	205,100	481,000	138,000	1,870,100

JANUARY 25.—By the Steamer <i>Justin</i> , from Manáos and Pará:					
New York Commercial Co. ....	521,700	95,000	141,200	145,900	903,800
Poel & Arnold .....	348,500	61,100	239,600	42,900	692,100
A. T. Morse & Co. ....	78,900	20,900	90,800	106,600	297,200
General Rubber Co. ....	50,100	25,900	89,300	2,700	168,000
Hagemeyer & Brunn .....	44,600	.....	85,100	.....	129,700
L. Johnson & Co. ....	31,300	7,000	1,100	.....	44,400
Edmund Reeks & Co. ....	20,000	.....	7,300	.....	27,300
Czarnikow, McDougal & Co. ....	24,500	.....	.....	.....	24,500
Wm. E. Peck & Co. ....	10,700	.....	6,600	.....	17,300
C. P. dos Santos .....	.....	.....	13,200	.....	13,200
G. Amsinck & Co. ....	.....	.....	.....	11,000	11,000
F. Rosenstein & Co. ....	8,100	.....	3,000	.....	11,100
Total .....	1,141,400	209,900	677,200	309,100	2,337,600

[Note.—The steamer *Benedict* is due at New York February 4, with 900 tons Pará and 150 tons Caucho on board.]

## PARA RUBBER VIA EUROPE.

POUNDS.	
DEC. 21.—By the <i>Campania</i> =Liverpool:	
Poel & Arnold (Fine) .....	215,000
General Rubber Co. (Fine) .....	25,000
New York Commer. Co. (Fine) .....	10,000
DEC. 22.—By the <i>Trent</i> =Mollendo:	
New York Commer. Co. (Fine) .....	6,500
DEC. 26.—By the <i>Pretoria</i> =Hamburg:	
Rubber Trading Co. (Fine) .....	8,000
W. L. Gough & Co. (Fine) .....	5,000
New York Commer. Co. (Fine) .....	6,000
Poel & Arnold (Coarse) .....	5,500
DEC. 26.—By the <i>Lucania</i> =Liverpool:	
General Rubber Co. (Fine) .....	78,000
New York Commer. Co. (Fine) .....	14,000
DEC. 29.—By the <i>Bovic</i> =Liverpool:	
Poel & Arnold (Fine) .....	22,000
JAN. 2.—By the <i>Cedric</i> =Liverpool:	
General Rubber Co. (Fine) .....	70,000
New York Commer. Co. (Fine) .....	11,500
JAN. 6.—By the <i>Georgic</i> =Liverpool:	
General Rubber Co. (Fine) .....	11,000
Livesey & Co. (Fine) .....	1,500
JAN. 7.—By the <i>Tagus</i> =Mollendo:	
New York Commer. Co. (Fine) .....	10,000
JAN. 8.—By the <i>Batavia</i> =Hamburg:	
Poel & Arnold (Fine) .....	15,000
W. L. Gough & Co. (Fine) .....	4,500
Poel & Arnold (Cauchó) .....	22,500
JAN. 9.—By the <i>Campania</i> =Liverpool:	
General Rubber Co. (Fine) .....	28,000
JAN. 11.—By the <i>Saga</i> =Bolívar, Venza:	
G. Amsinck & Co. (Fine) .....	25,000
JAN. 18.—By the <i>Alliance</i> =Mollendo:	
W. R. Grace & Co. (Cauchó) .....	25,000
JAN. 18.—By the <i>Carmania</i> =Liverpool:	
Livesey & Co. (Coarse) .....	6,500
JAN. 20.—By the <i>Tojomo</i> =Bolívar, Venza:	
For Hamburg (Fine) .....	11,000
JAN. 22.—By the <i>Brasilia</i> =Hamburg:	
Poel & Arnold (Fine) .....	11,000

## OTHER NEW YORK ARRIVALS CENTRALS.

[\*This sign, in connection with imports of Centrals, denotes Guayule rubber.]

DEC. 21.—By the *El Val*=Galveston:

Continental-Mexican Rubber Co. *	50,000
Mercer Rubber Co. ....	5,500
DEC. 21.—By the <i>Baltic</i> =Liverpool:	
General Rubber Co. ....	5,000
DEC. 24.—By the <i>Byron</i> =Bahia:	
Poel & Arnold .....	29,000
A. Hirsch & Co. ....	8,500
J. H. Rossback & Bros. ....	3,500
A. D. Hitch & Co. ....	4,500
DEC. 26.—By the <i>Pretoria</i> =Hamburg:	
Poel & Arnold .....	45,500
DEC. 26.—By the <i>Merida</i> =Frontera:	
Harburger & Stack .....	3,500
E. Steiger & Co. ....	2,000
Maxwell & Ruddy .....	1,000
American Trading Co. ....	1,000
Scholz & Marter .....	1,000
DEC. 28.—By the <i>Colon</i> =Colon:	
Demarest Bros. Co. ....	7,500
G. Amsinck & Co. ....	5,500
Hirzel, Feltman & Co. ....	4,500
L. Johnson & Co. ....	1,500
Smethers Nordenholt Co. ....	1,500
Hy. Mann & Co. ....	1,000
Fidankel Bros. ....	1,000
DEC. 28.—By the <i>Proteus</i> =New Orleans:	
A. T. Morse & Co. ....	2,000
DEC. 29.—By the <i>El Cid</i> =Galveston:	
Continental-Mexican Rubber Co. *	115,000
Republic Rubber Co. ....	11,000
DEC. 30.—By the <i>Prins Wilhelm</i> =Colon:	
I. Brandon & Bros. ....	1,000
A. Held .....	1,000
Suzarte & Whitney .....	1,000
Roldan & Van Sickle .....	1,000
JAN. 2.—By the <i>Morro Castle</i> =Frontera:	
E. N. Tibbals & Co. ....	3,500
General Export & Com. Co. ....	3,000
W. L. Wadleigh .....	4,000
Harburger & Stack .....	3,000
E. Steiger & Co. ....	2,000
Graham, Hinkley & Co. ....	1,000
H. Marquard & Co. ....	1,000
JAN. 2.—By the <i>Creole</i> =New Orleans:	
A. T. Morse & Co. ....	2,500
Manhattan Rubber Mfg. Co. ....	1,000
Eggers & Heinlein .....	1,500
JAN. 2.—By the <i>Minnetonka</i> =London:	
Edward Maurer .....	5,000

JAN. 2.—By the <i>Panama</i> =Colon:	
L. Johnson & Co. ....	4,500
National Machine Co. ....	4,500
Piza, Nephews & Co. ....	4,500
G. Amsinck & Co. ....	3,500
West Coast Rubber Co. ....	2,500
Mecke & Co. ....	3,000
Hirzel, Feltman & Co. ....	2,500
Aramburo Co. ....	1,000
Demarest Bros. & Co. ....	1,500
Wessels, Kulen, Kamp Co. ....	1,000
Silva Bussenius Co. ....	1,000
JAN. 4.—By the <i>El Rio</i> =Galveston:	
Continental-Mexican Rubber Co. *	155,000
Dunlap Tire Co. ....	2,500
JAN. 5.—By the <i>Hudson</i> =Bordeaux:	
Robinson & Co. ....	11,500
JAN. 5.—By the <i>Verdi</i> =Bahia:	
A. D. Hitch & Co. ....	22,500
A. Hirsch & Co. ....	23,000
J. H. Rossback & Bros. ....	13,500
Poel & Arnold .....	4,500
JAN. 6.—By the <i>Heigin</i> =Tampico:	
Edward Maurer .....	115,000
Poel & Arnold .....	45,000
JAN. 6.—By the <i>Siberia</i> =Colon:	
G. Amsinck & Co. ....	11,500
A. Santos & Co. ....	8,000
A. M. Capeus Sons .....	1,000
JAN. 6.—By the <i>Manzanillo</i> =Tampico:	
Edward Maurer .....	140,000
Poel & Arnold .....	45,000
New York Com. Co. ....	34,000
H. Marquard & Co. ....	15,000
General Export & Com. Co. ....	5,000
J. A. Kendall Co. ....	6,000
JAN. 7.—By the <i>Tagus</i> =Colon:	
Kunhardt & Co. ....	11,500
J. Brandon & Bros. ....	9,000
A. Held .....	1,000
JAN. 9.—By the <i>Mexico</i> =Frontera:	
Mexican Commercial Co. ....	1,000
E. Steiger & Co. ....	1,000
Graham, Hinkley & Co. ....	1,000
Isaac Kubie & Co. ....	1,000
JAN. 11.—By the <i>Vigilancia</i> =Tampico:	
Edward Maurer .....	145,000
Poel & Arnold .....	18,000
JAN. 11.—By the <i>Advance</i> =Colon:	
Meyer Hecht .....	2,000

# RUBBER FLUX

No. 17. Particularly adapted to softening material for tubing machine. Almost universally used for waterproofing wire.

No. 48. For fluxing pigments in compounding. A valuable adjunct to the manufacture of moulded goods as it DOES NOT BLOW UNDER CURE.

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Largest Producers of Guayule Rubber, Operating Nine Factories.

Wessels, Kulem, Kamp Co.	1,000
Schulte & Gieschen	1,000
G. Amsinck & Co.	1,000
De Lima & Cortessa	1,000
JAN. 12.—By the <i>Antilles</i> =New Orleans:	
A. T. Morse & Co.	1,500
E. N. Tibbals Co.	1,500
General Export & Com. Co.	1,000
JAN. 13.—By the <i>Prins Joachim</i> =Colon:	
A. Rosenthal's Sons	6,000
G. Amsinck & Co.	6,000
Kunhardt & Co.	1,500
A. Held & Co.	1,000
JAN. 16.—By the <i>El Moro</i> =Galveston:	
Continental-Mexican Rubber Co.	*110,000
JAN. 16.—By the <i>Esperanza</i> =Frontera:	
Harburger & Stack	3,000
General Export & Com. Co.	2,500
H. Marquard & Co.	1,500
A. Klipstein & Co.	1,000
JAN. 18.—By the <i>Alliance</i> =Colon:	
D. A. De Lima & Co.	2,500
I. Brandon & Bros.	20,000
Mecke & Co.	1,000
Piza, Nephews & Co.	1,000
JAN. 18.—By the <i>Bayamo</i> =Tampico:	
Edward Maurer	*115,000
New York Commercial Co.	*34,000
Poel & Arnold	*8,000
General Export Com. Co.	*3,000
JAN. 20.—By the <i>Tennyson</i> =Bahia:	
A. D. Hitch & Co.	10,000
JAN. 20.—By the <i>Colon</i> =Colon:	
I. Brandon & Bros.	5,000
A. Santos & Co.	2,500
G. Amsinck & Co.	3,000
Hirzel, Feltman & Co.	1,500
F. Lapreira	1,500
L. Johnson & Co.	1,000
Eggers & Heinlein	1,000
JAN. 21.—By the <i>El Sud</i> =Galveston:	
Continental-Mexican Rubber Co.	*35,000
JAN. 22.—By the <i>Italian Prince</i> =Bahia:	
Poel & Arnold	22,500
A. Hirsch & Co.	8,000
J. H. Rossback & Bros.	5,500
JAN. 23.—By the <i>El Monte</i> =Galveston:	
Continental-Mexican Rubber Co.	*115,000

## AFRICANS.

DEC. 21.—By the <i>Campania</i> =Liverpool:	
General Rubber Co.	4,500
Poel & Arnold	4,000
DEC. 21.—By the <i>Baltic</i> =Liverpool:	
General Rubber Co.	47,000
Poel & Arnold	5,000
DEC. 22.—By the <i>Amerika</i> =Hamburg:	
A. T. Morse & Co.	34,000
W. L. Gough Co.	15,000
George A. Alden & Co.	7,000
DEC. 23.—By the <i>Kroonland</i> =Antwerp:	
A. T. Morse & Co.	32,000
W. H. Stiles & Co.	7,000
DEC. 26.—By the <i>Pretoria</i> =Hamburg:	
George A. Alden & Co.	25,000
W. L. Gough Co.	13,500
Livesey & Co.	5,500
DEC. 26.—By the <i>Lucania</i> =Liverpool:	
General Rubber Co.	125,000
General Rubber Co.	33,500
Robinson & Co.	7,000
DEC. 29.—By the <i>Zeeland</i> =Antwerp:	
Poel & Arnold	55,000
A. T. Morse & Co.	38,000
Rubber Trading Co.	5,500
DEC. 29.—By the <i>Bovic</i> =Liverpool:	
General Rubber Co.	45,000
Poel & Arnold	5,000
DEC. 30.—By the <i>Massachusetts</i> =London:	
Robinson & Co.	4,500
DEC. 31.—By the <i>Erika</i> =Lisbon:	
General Rubber Co.	90,000

JAN. 2.—By the <i>Cedric</i> =Liverpool:	
General Rubber Co.	18,000
Poel & Arnold	17,000
George A. Alden & Co.	8,000
Livesey & Co.	3,000
JAN. 5.—By the <i>Hudson</i> =Bordeaux:	
General Rubber Co.	22,500
JAN. 7.—By the <i>Samland</i> =Antwerp:	
Rubber Trading Co.	22,500
A. T. Morse & Co.	7,000
JAN. 8.—By the <i>Carolina</i> =Havre:	
George A. Alden & Co.	22,500
JAN. 9.—By the <i>Campania</i> =Liverpool:	
General Rubber Co.	15,000
George A. Alden & Co.	11,500
W. L. Gough Co.	5,500
A. T. Morse & Co.	2,000
Poel & Arnold	2,000
Rubber Import Co.	2,500
JAN. 12.—By the <i>Mesaba</i> =London:	
Robinson & Co.	4,500
JAN. 14.—By the <i>Finland</i> =Antwerp:	
A. T. Morse & Co.	11,500
W. H. Stiles & Co.	11,500
Rubber Trading Co.	6,500
JAN. 19.—By the <i>Vaderland</i> =Antwerp:	
A. T. Morse & Co.	40,000
JAN. 22.—By the <i>Brasil</i> =Hamburg:	
General Rubber Co.	30,000
Livesey & Co.	15,000
George A. Alden & Co.	15,000
W. L. Gough Co.	5,500
Rubber Trading Co.	5,000

## EAST INDIAN.

[\*Denotes plantation rubber.]

DEC. 21.—By the <i>St. Paul</i> =London:	
Poel & Arnold	*18,000
DEC. 21.—By the <i>Minneapolis</i> =London:	
General Rubber Co.	*16,000
New York Commercial Co.	*12,000
A. T. Morse & Co.	*9,000
DEC. 24.—By the <i>Bucrania</i> =Colombo:	
A. T. Morse & Co.	*7,000
DEC. 26.—By the <i>Adriatic</i> =London:	
Poel & Arnold	*20,000
A. T. Morse & Co.	*3,500
Poel & Arnold	3,000
DEC. 28.—By the <i>Shimosa</i> =Singapore:	
Otto Isenstein & Co.	34,000
George A. Alden & Co.	2,000
DEC. 30.—By the <i>Massachusetts</i> =London:	
New York Commercial Co.	*5,000
DEC. 31.—By the <i>Arenfels</i> =Colombo:	
A. T. Morse & Co.	*11,000
JAN. 2.—By the <i>Minnetonka</i> =London:	
New York Commercial Co.	*4,500
JAN. 4.—By the <i>St. Louis</i> =London:	
Poel & Arnold	*22,500
JAN. 4.—By the <i>Indrani</i> =Singapore:	
Heabler & Co.	29,000
Joseph Cantor	8,000
W. L. Gough & Co.	11,000
JAN. 11.—By the <i>Lichenfels</i> =Colombo:	
A. T. Morse & Co.	*11,000
JAN. 12.—By the <i>Mesaba</i> =London:	
Robinson & Co.	11,500
JAN. 14.—By the <i>Tentonic</i> =London:	
Poel & Arnold	13,500
JAN. 16.—By the <i>Rheinfels</i> =Colombo:	
A. T. Morse & Co.	*11,500
JAN. 18.—By the <i>Minnehaha</i> =London:	
New York Commercial Co.	*23,000
A. T. Morse & Co.	*10,000
Poel & Arnold	*2,500
JAN. 21.—By the <i>St. Patrick</i> =Singapore:	
Otto Isenstein & Co.	28,000
W. L. Gough & Co.	10,000

## GUTTA-JELUTONG.

DEC. 26.—By the <i>Pretoria</i> =Hamburg:	
Macklenburg & Co.	20,000
DEC. 28.—By the <i>Shimosa</i> =Singapore:	
Heabler & Co.	95,000
G. Weschuer & Co.	80,000
George A. Alden & Co.	200,000
JAN. 4.—By the <i>Indrani</i> =Singapore:	
L. C. Hopkins Co.	150,000
Heabler & Co.	155,000
G. Weschuer & Co.	120,000
George A. Alden & Co.	90,000
JAN. 21.—By the <i>St. Patrick</i> =Singapore:	
L. C. Hopkins Co.	125,000
G. Weschuer & Co.	100,000
Heabler & Co.	125,000

## GUTTA-PERCHA.

DEC. 22.—By the <i>Amerika</i> =Hamburg:	
E. Oppenheim	8,000
DEC. 28.—By the <i>Shimosa</i> =Singapore:	
George A. Alden & Co.	45,000
JAN. 4.—By the <i>Indrani</i> =Singapore:	
George A. Alden & Co.	45,000
W. L. Gough Co.	20,000
Heabler & Co.	10,000
JAN. 21.—By the <i>St. Patrick</i> =Bolivan Venza:	
Heabler & Co.	45,000

## BALATA.

DEC. 22.—By the <i>Korana</i> =Demerara:	
George A. Alden & Co.	13,500
Middleton & Co.	1,000
Frame & Co.	1,000
JAN. 12.—By the <i>Coppename</i> =Demerara:	
G. Amsinck & Co.	1,500
Middleton & Co.	1,000
JAN. 11.—By the <i>Saga</i> =Bolivan Venza:	
G. Amsinck & Co.	100,000
J. A. Pauli & Co.	9,000
American Trading Co.	7,000
For Europe	345,000
JAN. 12.—By the <i>Mesaba</i> =London:	
H. A. Gould & Co.	4,500
JAN. 14.—By the <i>Statendam</i> =Rotterdam:	
Earle Brothers	7,000
JAN. 15.—By the <i>Maracas</i> =Trinidad:	
American Trading Co.	11,500
Frame & Co.	1,500
C. Tennants Sons & Co.	1,000
JAN. 20.—By the <i>Tojomo</i> =Bolivan Venza:	
G. Amsinck & Co.	42,000

## CUSTOM HOUSE STATISTICS.

## PORT OF NEW YORK—DECEMBER.

Imports:	Pounds.	Value.
India-rubber	8,872,354	\$7,191,064
Balata	21,292	11,085
Gutta-percha	10,380	5,488
Gutta-jelutong (Pontianak)	1,506,185	46,646
Total	10,410,211	\$7,254,283
Exports:		
India-rubber	23,688	\$18,316
Reclaimed rubber	48,837	6,188
Balata	14,124	8,520
Rubber scrap imported	1,302,775	\$103,486

## BOSTON ARRIVALS.

	Pounds.
DEC. 20.—By the <i>Shimosa</i> =Singapore:	
George A. Alden & Co., East Indian	800
DEC. 23.—By the <i>Devonian</i> =Liverpool:	
George A. Alden & Co., Africans	6,600
DEC. 23.—By the <i>Arenfels</i> =Colombo:	
A. T. Morse & Co., East Indian	4,476
Total	11,876

## CONSUMPTION OF INDIA-RUBBER BY THE UNITED STATES AND CANADA (IN TONS).

[From the Annual Statistical Summary of Albert T. Morse &amp; Co., New York.]

DETAILS.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.
Imports to United States	16182	14333	17671	18620	23095	20468	23208	21842	24760	27623	28635	29936	29433	29477
Exports to Europe	324	500	250	150	300	450	680	430	490	274	357	1625	558	480
Add stock on January 1	15858	13833	17421	18470	22795	20018	22528	21412	24270	27349	28278	28311	28875	28997
	1420	558	641	744	591	712	1198	1399	331	256	305	537	365	606
Less stock close of year	17278	14391	18062	19214	23386	20730	23726	22811	24601	27605	28583	28848	29240	29603
	558	641	744	591	712	1198	1399	331	256	305	537	365	606	*1553
Deliveries to manufacturers	16720	13750	17318	18623	22674	19532	22327	22480	24345	27300	28046	28483	28634	28050
Imports of guayule rubber, 3,850 tons.														

\*Includes Crispin's cargo, 900 tons.



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## Plantation Rubber.

LONDON, December 31.—At to-day's auction of 1,425 packages of Ceylon and Malaya plantation rubber—a total of about 74 tons—1,151 packages found buyers at an irregular advance of from 1d. to in some cases 2d. per pound on last sale rates. A parcel of Lanadron block of about 6 tons was partly sold at 5s. 10d. to 5s. 10½d. [= \$1.42.4]. The next best figure was 5s. 7¾d. [= \$1.37.3] for Gikiyanakande estate worm. The highest price for crepe was 5s. 6¾d. [= \$1.35.3]. The average realized for Plantation was 5s. 2d. [= \$1.25.7], against 3s. 2½d. [= 78 cents], the average at the corresponding sale a year ago. Hard fine Pará to-day sold up to 5s. 1½d. [= \$1.24.7].

LONDON, January 25.—At to-day's auction of 2,138 packages of Ceylon and Malaya plantation rubber—a total of about 106 tons, the largest quantity of Plantation that has ever been offered at a single sale—1,621 packages found buyers at irregular prices, but on the whole marking a decline of from 2d. to 3d. per pound, as compared with the preceding auction. Part of an invoice from Sereban estate brought 5s. 8d. [= \$1.37.8], as also did some pale Warriapolla biscuits—the highest price of the sale. Gow, Wilson & Stanton, Limited, report that as a number of samples were not received until just before auction, buyers were handicapped in valuing the sale. The average realized for Plantation was 5s. 0 ¼d. [= \$1.21.7]. Hard fine Pará sold to-day up to 5s. 0 ½d. [= \$1.22.6].

## TO-DAY'S QUOTATIONS FOR PLANTATION.

<i>Sheets and Biscuits:</i>	
Fine pale Worm.....	5s. 5¼d.
Fine pale Biscuits.....	5s. 8d.
Good to fine Biscuits.....	5s. 1¼d. @ 5s. 4½d.
Good to fine Sheet.....	5s. 1¼d. @ 5s. 1¾d.
<i>Crepe:</i>	
Very pale Crepe.....	5s. 8d.
Medium and palish.....	4s. 11d. @ 5s. 3½d.
Dark and brown.....	3s. 10½d. @ 4s. 9¾d.
<i>Unwashed Scrap:</i>	
Medium to fine.....	3s. 9d. @ 4s. 2¼d.

The exports of plantation rubber from Malaya from January 1 to November 30 were as follows:

	Pounds.	To Australia.....	Pounds.
To Great Britain.....	2,658,177		19,162
To Europe.....	271,858	To Ceylon.....	268,187
To United States ...	400		
To Japan.....	9,352	Total.....	3,227,136

[From Singapore, 1,857,312; from Penang, 1,369,884.]

The above rate points to the exports from Malaya of about 3,500,000 pounds of plantation rubber for the whole year, against 2,089,085 pounds in 1907 and 817,769 pounds in 1906.

## Rotterdam Rubber Statistics

INDIA RUBBER.		1907.	1908.
Stocks, January 1.....	kilos	106,800	86,800
Arrivals during year.....		1,089,000	1,273,400
Aggregating.....		1,195,800	1,360,200
Deliveries during year.....		1,109,000	1,305,200
Stocks, December 31.....		86,800	55,000
BALATA (SURINAM SHEET.)		1907.	1908.
Stocks, January 1.....	kilos	4,800	nil
Arrivals during year.....		224,000	330,000
Aggregating.....		228,800	330,000
Deliveries during year.....		228,800	312,000
Stocks, December 31.....		nil	18,000
GUTTA-PERCHA.		1907.	1908.
Stocks, January 1.....	kilos	173,000	121,300
Arrivals during year.....		43,000	37,800
Aggregating.....		216,000	159,100
Deliveries during year.....		94,700	48,600
Stocks, December 31.....		121,300	110,500

## Rubber Receipts at Manaus.

DURING November and five months of the crop season, for three years [courtesy of Messrs. Scholz & Co.]:

FROM	NOVEMBER.			JULY-NOVEMBER.		
	1908.	1907.	1906.	1908.	1907.	1906.
Rio Puris-Acre.....	556	528	638	3,071	2,635	2,157
Rio Madeira.....	289	259	395	1,464	1,295	1,678
Rio Jurá.....	389	283	335	987	748	857
Rio Javary-Iquitos.....	331	420	472	1,227	1,454	1,366
Rio Solimoes.....	256	216	126	509	611	319
Rio Negro.....	13	27	44	19	30	58
Total.....	1,834	1,733	2,010	7,277	6,773	6,435
Caucho.....	224	150	175	1,070	934	826
Total.....	2,058	1,883	2,185	8,347	7,707	7,261



